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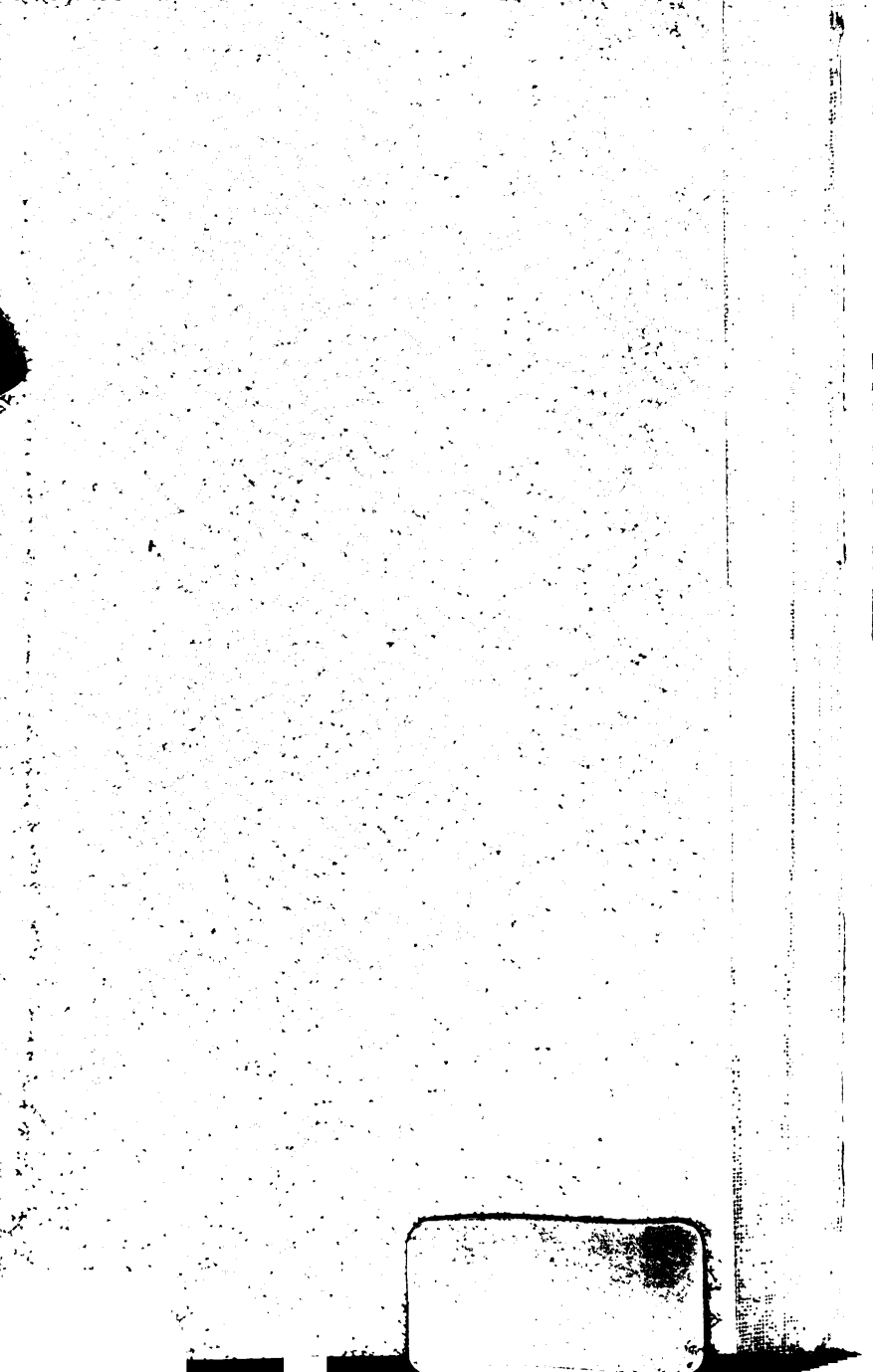
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MAKERS
OF
MODERN THOUGHT,

OR

*Five Hundred Years' Struggle (1200 A.D. to 1699 A.D.)
between Science, Ignorance, and Superstition.*

BY

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AUTHOR OF "THE INSTITUTES OF ENGLISH LAW," ETC. ETC.

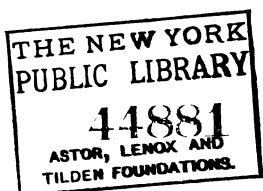
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P R E F A C E .

As the main object of this book is not necessarily self-evident, a word concerning its origin may be pardoned. When writing an Essay—not yet published—under the title of “An Essay on the Social History of Man,” I encountered a somewhat formidable difficulty. For the want of a recognised term, I could not, without ample illustration, express an idea present to my mind intelligibly.

That in the social, no less than in the physical history of our race, the doctrine of “Evolution” cannot be ignored, but few would contest. The term “Evolution,” however, when applied to social man, is so obviously indefinite as imperatively to demand careful consideration. Is the material, the moral, the mental, the theological, or what other element of social man intended? In order to express the class of evolution present to my mind, no other adjective than “spiritual” satisfied me. What I intend by the term “Spiritual Evolution” I have attempted to explain in the introduction. This book is, in short, the illustration of my meaning, and is intended to show the distinction between the labours of individuals and the outcome of their combined efforts.

1892

My difficulty was to get a suitable illustration of the idea expressed by the term “Spiritual Evolution.” I considered various stages in the social life in England; and endeavoured there to find a period that would answer my purpose, but I found that England was too small. Nothing, in short, less than an exhibition of the thoughts and lives of the men of most “light and leading” in Europe, as a whole, would suffice. Fortunately, however, the 500 years A.D. 1200 to A.D. 1699, taking Europe as a whole, appeared for my purpose ample.

How to bring the illustration of my idea satisfactorily before the reader within a reasonable compass was the next difficulty.

When the list of names that, in my opinion, could not be omitted, was complete, I had—keeping my main object in view—to consider how best to deal with each. The early characters, though in some respects no less important than the later, I have ventured to pass over with but little more than mention of their names, the dates when they respectively lived, and the facts that make them elements of the spiritual evolution of the period in question.

The invention of printing is the natural and necessary turning point in the diffusion of knowledge in Europe. When Columbus, who immediately follows, was reached, a pause was made—*i.e.*, his career is more fully stated in order that the reader may be impressed by, and become sensible of, a great change. Machiavelli's "Prince" demanded special notice. Copernicus, though revolutionizing European notions as to the heavenly bodies, has been dealt with briefly. Luther, Rabelais, and Loyola, all bent on religious reform, though each in a manner peculiar to himself, have received the attention that the importance of the labour of each demanded, and that space permitted. The sketches of the lives of Montaigne and Shakespeare have been liberally illustrated by extracts from their writings. A brief digest has been made of Bacon's "Advancement and Proficiency of Learning," and of his "Novum Organum." The immortal Harvey has had careful consideration. In the cases respectively of Grotius' "War and Peace," Hobbes' "Leviathan," and Locke's "Human Understanding," an attempt has been made to show the construction of those immortal books, or at least important parts of them, and, by extracts, each in its proper place and in the language of the author, to enable the reader to form some conception of the whole. To touch Descartes' "Method" would be to mar it. It has therefore been translated in full. Pascal's "Provincial

Letters" are equally incapable of analysis. A selection, however, was possible, and two have been chosen and translated to represent the whole. Spinoza required treatment peculiar to himself. Newton, in common with the other astronomers, has been dealt with as briefly as possible, but it is believed sufficiently for the purposes of the general reader. His life, in this book, is a digest of Sir David Brewster's *Life of Newton*. The notices of the other astronomers are simply copied, word for word, from that book.

The opinion of A, B, or C as to what X, Y, or Z did or said, is doubtless acceptable to many, and possibly sufficient for some; others, however, prefer to know what X, Y, or Z did or said, and when they did what they did, and when they said what they said, that they may be able to draw their own conclusions as to whether it was well done or said. Such persons want facts properly arranged, and want them in such quantities as are reasonably sufficient to prevent their conclusions from being erroneous, at all events from their point of view. It is for such as those that this attempt to supply necessary and sufficient material, with references to sources whence more may be derived if needed, has been made.

Many names might doubtless have been added that are omitted. Blame on that head I must accept. I should, however, be sorry indeed, if with justice it could be said that I have introduced any name that ought to have been omitted, and more especially if, unwittingly, I have shown any bias. By the aid of the two Tables of Contents, the reader will be easily able to refresh his memory as to any point that may have struck him when reading the text.

DAVID NASMITH.

4, Brick Court, Temple.

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MAKERS OF MODERN THOUGHT.

INTRODUCTION.

TO watch the growth of the most simple plant, the unfolding of a single bud, the development of the blind-born puppy, or the still more helpless human infant, is an occupation pleasing alike to child and adult, and not unworthy of the highest intellect. If that be true, what must be the interest and profit attaching to the careful and intelligent study, not of an individual person, not of a single family, not of a single nation, but of that community of nations we call Europe; not its material or political development, for that in some sense is impossible—in those respects nations are and must remain individual—but the development of that something which between A.D. 1200 and A.D. 1699 wrought the mighty change that in fact took place in European thought.

Though the labours of the student child may be as constant and as keen as those of the adult sage in matters within its comprehension, and though its gratification may be as complete as his, they are not, they cannot be, the same. The child cannot see in its pet plant, or puppy, a leaf in the great book of Nature. The more closely it watches and studies the material thing, the more remote become its thoughts from the great source of all things. It is enough to it that the pet daily grows, and hourly becomes a more pleasing object.

Between the infant and the adult mind of the same individual there is necessarily a marked difference. But assuming the infant mind to be practically the same in all cases—a blank, open to the reception of impressions from the objects presented to it—we see that the difference between one adult

mind and another may be enormous. What objects are presented to the mind of the infant rustic? If we compare them with those presented to the mind of the little London Street Arab, we have no difficulty in accounting for the superior intelligence of the latter. The intelligence of the Street Arab of six or seven years of age is, as we all know, vastly superior to that of the rustic adult; and necessarily so, for whereas the rustic sees but few things and hears of but little, the gaze of the little Arab is on a perpetual panorama, his ears are ever listening to new and strange tales.

It is by considerations such as these that we become prepared to estimate the condition of the ordinary adult European mind at the commencement of the thirteenth century, that is to say, at the beginning of the period we propose to consider. Clear notions on that point are necessarily indispensable to a due appreciation of the evolution here termed "Spiritual."

But what are we to understand by the term "Spiritual" as here used? If we regard Law, Religion, and Morality as the three elements of the Social Trinity, and say, as we appear justified in saying, that no human society does or can exist without any of these elements, we have the basis of our proposition.

As the white solar light is the result of the due blending of its several elements—violet, indigo, blue, green, yellow, orange, and red—so is spiritual light the product of law, religion, morality, the sciences commonly so called, and the Arts. By the aid of solar light our senses receive impressions from the objects that surround us. By the aid of spiritual light our souls behold the great source and object of all things, the reason of our being, and the way to human happiness. As the first dawn of day makes visible to the physical eye a hazy something where nothing is definite, so does the first dawn of spiritual light reveal little else than ignorance, superstition, and tyranny. As the sun rises, the mists disappear, and in

time all stands boldly out, our individual lack of power of vision alone preventing our perfect realisation of the scene with all its beauties. So, as the spiritual light brightens, ignorance, superstition, and tyranny give place to knowledge of things divine and human, limited alone by our individual incapacity of grasp. In the broad daylight all see, though some see further and more clearly than others. It is the same with spiritual light. To seek spiritual light in religion, or in law, or in morality, is as vain as to expect to find white light in any of the elements of solar light; spiritual light, as solar light, is a product of many elements. The compounding of the elements in the case of solar light is perfect, for it is the work of God. The compounding of the elements in the case of spiritual light is imperfect, for it is the work of man; a work still progressing, and which may go on progressing till man shall attain to all of which he is capable.

To acquire anything like a just conception of any period in the past history of any given people, the best method is, possibly, that of elimination. Thus, for example, if we in England in the year A.D. 1891 desire to realise the state of things here in the year A.D. 1200, it may be taken for granted that no mere reading of histories of the period will suffice; for if written at the time, they were written by men who saw with the eyes of the time; and if written by those of our own period, they were written by those who see with the eyes of our period. Which is likely most to mislead, it might be difficult to say, but without hesitation it may be affirmed that each is almost certain to do so. If, however, we take matters as they are, and, going backward, strike out everything that we regard as a necessity of legal, religious, moral, and, we may add, bare animal existence, as, and when, we reach the date of its introduction, we by the process of elimination arrive with some degree of accuracy at the condition of things in A.D. 1200; that is to say, we know what, of that which we now consider necessary, good, or simply convenient, was then sub-

sisting. With that knowledge alone, however, we shall be far from the true appreciation of the position. For, though the various matters and things that we have eliminated are by us regarded as necessities or conveniences of life, it by no means follows that, even if known, they would have been acceptable to the community as a whole in A.D. 1200. That they could not, as a whole, have been presented to it is made abundantly clear in this book.

In the year A.D. 1200, as in the year A.D. 1891, the community consisted of minors, adults, and aged; of rich and poor, of governors and the governed. As to the minors, they then, as now, were learning somewhat against their will what their fathers had learned before them; as to the adults, they had spent, in their opinion, time enough in learning, and at all events, had no desire to begin the process of unlearning in order to begin something new; as to the aged, the bare notion of change was hateful. Their prayer was, as with most it still is: "Peace, peace, for God's sake, let us have peace!"

When we consider the institutions, whether political, religious, or purely social, of any people historically, and trace their modifications and transformations, two facts force themselves upon the attention, viz.: I.—Be the modifications or transformations what they may, Law, Religion, and Morality always do and must remain. We cannot conceive of a human community without them or any of them. II.—There must have been a time when the particular code of law, the religious creeds, forms and ceremonies, and the moral practices and sentiments, now things of the past, were, if not the best possible, at all events fairly well adapted to the then social necessities, for, otherwise, they would not have existed. To suppose that institutions, however well adapted to the wants of the European of A.D. 1200, could be equally well adapted to the wants of the European of A.D. 1699, necessarily involves the hypothesis that a people and their institutions can remain stationary, which is as irrational as the supposition that a

child can for ever remain a child. The child that lives must develop, but he may develop into a good or into a bad man. National institutions cannot remain stationary, but the change is not necessarily for the better.

If a particular sovereign power, once tolerable, or too strong to be overthrown by the subject element, becomes intolerable and capable of being overthrown, or so shaken and modified as once more to make it tolerable, it is obvious that the subject element can either overthrow it, or secure the desired alteration.

If a particular religion becomes distasteful, or its priests intolerant, it is evident that the laity of that church who are dissatisfied with their condition can either abandon it or remain in it and attempt its reformation.

When, and as, the moral principles and practices of a people cease to satisfy, they are abandoned.

Whether it is the Law, the Religion, or the Morality that is, or is supposed to be, at fault, it is manifest that the idea that it is so could not have possessed the national mind as a whole at any given moment. Assuming defect, the defect must have been a growth. The fact of the growing evil can only have presented itself in the first instance to the one, or to the few. When it is said that the assumed evil is a growth, it will of course be understood that the institution does not necessarily change. The remaining stationary while the surroundings change as effectually, though possibly not so rapidly, causes the growth of the evil, as does the degeneration of the institution.

So long as the fact of the evil remains the conviction of but the few, its inconvenience is slight and the time of its removal remote, nor can the few reasonably expect the many to give heed to their complaints, however well founded in fact. Nor, within certain limits, is it unreasonable for the many to attempt to suppress the fault-finders and disturbers of the ancient order and the public peace. If social evils are things of slow growth, social reforms are invariably slower.

If one, for example, a Christian, asks himself seriously: "Why am I not a Buddhist?" he may possibly be able to find but one rational answer, and that this: "My parents were If that is the only answer that can be given by any one who substitutes for the word "Buddhist" the term "Roman Catholic," or the word "Protestant," it is not easy to see why the members of different religious bodies should be so hostile the one to the other as history shows us they have been, and as our experience tells us they, in too many cases, still are. One might think that, as the professed aim of each is obedience to the will of God, differences of opinion as to what that will is could not be cause of offence, though pity for the errors and ignorance of the individual assumed to be in the wrong might be but natural.

That Ecclesiastics of all places and in all ages should have defended and fought for their particular institutions is as natural as that sovereign individuals, or bodies, should do so, or that the ordinary man should defend his actual or supposed rights. But why one individual should be irate with another, or hold him in contempt, because he entertains notions of God different from his own, must be somewhat difficult of explanation. Yet, for venturing to speak, if not for merely presuming to think on matters of religion, thousands have been brutally done to death, and tens of thousands otherwise cruelly persecuted.

A nation differs from its individual members in this, and in this mainly:—the term of its existence is longer. A nation is but the aggregation of its individual members, some of whom have but breathed the first breath of life, while others are breathing their last. Between these extremes, youth, manhood, and old age hold the mean. Three-score years and ten, except in rare instances, take the individual from his cradle to his grave. What the natural term of this or any other nation may be we know not. We know, however, that as the individual who violates the laws of nature, hastens his end and

reaches a premature grave, so assuredly does the nation that is blind or indifferent to the same dictates come to an untimely end.

Though it is not easy to learn, it is incomparably more difficult to unlearn. Who is there that forgets his native tongue though he learns many foreign languages? Who is there that questions the truth of the religion taught him in his youth? Who regards the manners and practices of his associates and himself as immoral? Few, very few. If this be true of the individual, it is necessarily so of the community—the nation.

What we are taught in early life is not necessarily right. We may never discover it to be wrong, or, discovering it to be wrong, or doubting whether it is right or wrong, we may rest content to remain as we are; we may hesitate to question, may even tremble at the notion of doing so; our conduct may be dictated by the purest or the basest of motives.

That most people are of opinion that their religion is the true religion is a proposition that possibly no enlightened Confucian, Buddhist, Jew, Moslem, or Christian, whether Papist or Protestant, would dispute. That every religion has had, has, and will always have professors of it, good, bad, and indifferent, men, if we may so phrase it, too good, and men too bad, to live, would possibly also be conceded.

If we are prepared to admit that no one is any more responsible for his native religion than he is for the land of his birth, the colour of his skin, or the language he was taught, we are in a fair way to be able to consider the subject of this essay without passion and without prejudice.

A historian cannot be a partisan. A man who, professing to be a historian, is a partisan, is unjust to himself and dangerous to others. He cannot see clearly. He cannot depict accurately.

At the period when the struggle, the subject of this essay, commenced, there was, and for ages before there had been, but one religion in Europe, or rather in those parts of Europe

with which we are concerned. That religion was Roman Christianity. The head of the Church was the Pope, who claimed to be the direct successor of St. Peter, and as such to be superior to, and, in short, lord of all temporal potentates.

Though it is no part of our duty to inquire into the prior history of that Church, it may be stated that there was a period in the history of the Christian Church when the doctrine of *imperium in imperio* was not even dreamed of, and when most of the matters we shall find complained of did not exist. At that period all the learned in Europe had also, in addition to their respective native tongue, one common language—Latin.

Thomas, in his eulogy of Descartes, when, in the spirit of this essay, making a rapid survey of a part of our period, says:—"I see in the universe a species of general fermentation. Nature seems to be in one of those stages when she makes her grandest efforts. Everything is in motion. The old landmarks are broken down. The human sphere expands. Columbus discovers America, Vasco de Gama the Indies. Cortez and Pizzaro subjugate new and vast lands. Magellan goes in quest of Southern hemispheres. Drake makes the tour of the world. Every nation is moved by the passion for discovery. Vast changes in politics and religion startle Europe, Asia, and Africa. The sciences feel the shock. Astronomy was born again in the fifteenth century. Copernicus re-established the system of Pythagoras, and the fact of the movement of the earth—a gigantic stride. Tycho Brahe, adding to the observations of all former times, corrected and improved the theory of the planets, determined the situation of a vast number of fixed stars, and demonstrated the position occupied in space by the comets. The number of known phenomena became enlarged. The legislator of the heavens made his appearance. Kepler confirmed the facts discovered before his time, and pointed the way to new truths, but lacked the instruments necessary to do more. The concave and convex

glasses, invented by an accident in the thirteenth century, were brought together three hundred years after, and formed the first telescope. Man felt himself in touch with the extremities of creation. Galileo did in the heavens what the great navigators had done on the waters, he approached new worlds. The satellites of Jupiter became known. The theory of the motion of the earth was confirmed by the phases of Venus. Geometry was applied to the doctrine of motion. The accelerated force of falling bodies was measured ; the weight of the air was discovered, its elasticity was becoming apparent. Bacon made a table of human sciences, and measured their value. He declared the necessity of their reform, and predicted, as a consequence, grand future results. Thus much nature had done for Descartes before his birth, and as by the Mariner's compass it had re-united the most distant parts of the globe, by the telescope had brought the very limits of the heavens to earth, by printing had established rapid communication between all thinking men, from one end of the world to the other, everything was ready for a grand revolution.

"The man destined to bring about this great change was already born. Nothing remained to nature but to ripen Descartes for the benefit of humanity, as for his benefit it had matured humanity. I do not stop to take note of his education. We need not consider him till he has to deal with superior souls. His education was one suited to ordinary mortals ; he had no other training suited to a man of genius than that which he gave himself, which mainly consisted in the demolition of all he had been taught. Descartes judged his age by what he had been taught. Even then he saw from thence. Even then he conceived and pressed forward to better things, as from Madrid or Genoa did Columbus to America.

. . . . If we seek among moderns the great men with whom he may be compared, we shall find three — Bacon, Leibnitz, and Newton. Bacon surveyed the entire field of human knowledge ; he pronounced his judgment on past gene-

rations and surpassed generations then yet to come ; but he rather indicated than executed great things ; he erected the scaffolding of a high edifice, leaving to others the care of its construction. Leibnitz was all that he desired to be ; he introduced into philosophy a high standard of intelligence, but he regarded the science of nature through the medium of artificial light,—his system of metaphysics seems made rather to astound and overthrow than to enlighten mankind. Newton gave birth to novel optics, and demonstrated the doctrine of gravitation. God forbid that I should attempt to detract from the glory of that illustrious man ! I simply direct attention to the material ready to his hand and utilised by him in his grand discoveries. I note that Galileo furnished him with the theory of weight ; Kepler the laws of the stars in their revolutions ; Huyghens the combination and results of centripetal and centrifugal forces ; Bacon the grand principle of tracing all phenomena to the ultimate cause ; Descartes his method of reasoning, his geometrical analysis, an infinite variety of physical facts, and, what possibly was of the greatest importance, the annihilation of all prejudice. The glory of Newton was thus in profiting by all the advantages he enjoyed, by the moulding into one all foreign elements ; uniting his own, which were enormous, and by incorporating the whole in his Calculus, which is as sublime as it is profound."

Sir David Brewster, in his life of Newton, says :—"The revelations of infinite wisdom are not vouchsafed to man in a day. A light so effulgent would paralyse the noblest intellect. It must break in upon it by degrees ; and even each separate ray must be submitted to the ordeal of various minds—to the apprentice skill of one age, and to the master genius of another."

I imagine Europe in A.D. 1200 as a large hall, so dark that it is almost impossible for one to grope his way in safety. I see Roger Bacon enter and place a light in one corner of it. I see him followed in slow procession by some 28 others, each bear-

ing and depositing his peculiar light in the place selected by himself. I see the hall gradually lighting up. I see Newton, the last of the train, solemnly enter and deposit his. I see the hall one blaze of light in A.D. 1699.

Lord Beaconsfield, when addressing the members of the Manchester Athenæum, said :—" Knowledge is like the mystic ladder in the patriarch's dream. Its base rests on the primæval earth—its crest is lost in the shadowy splendour of the empyrean ; while the great authors, who, for traditionary ages, have held the chain of science and philosophy, of poesy and erudition, are the angels ascending and descending the sacred scale, maintaining, as it were, the communication between man and heaven."

SKETCHES OF THE LIVES AND WRITINGS
OF
EMANCIPATORS OF THE EUROPEAN MIND.

BACON, ROGER—1214-1292.

Roger Bacon, born near Ilchester, in Somerset, became a Franciscan monk, devoted his life to the study of nature, and may justly be regarded as the pioneer of modern European thought. Considering the age in which he lived, he may be said to rank second to no man as an original thinker and discoverer. In moral philosophy he laid down some excellent precepts for the conduct of life. He approximated the discovery of the telescope, the camera obscura, and gunpowder, and not only detected the error in the calendar, but suggested the reformation subsequently made in it by Gregory XIII. But few of his time had the knowledge, or intelligence, necessary to enable them to appreciate his labours. His ignorant colleagues attributed his opinions and discoveries to the agency of the devil, and denounced his doctrines as dangerous. The Pope, at their instance, forbade him to teach at the university, suffered him to be thrown into prison, and even to be deprived of necessary food. He remained in prison till Clement IV., one of his few admirers, ascended the papal throne. Clement not merely liberated Bacon, but demanded a collection of his works. They were afterwards printed under the title of "Opus Majus." In the latter portion of his life, possibly to refute the suggestion of heresy, he wrote his "Compendium of Theology."

DANTE (PROPERLY DURANTE ALIGHIERI)—
1265-1321.

Dante, born in Florence, studied philosophy at Florence, Bologna, and Padua, and afterwards theology in Paris. He was a soldier and a statesman. In 1300 he was appointed one of the priors, or superior magistrates, of his native city, but in 1302 was banished for resisting the interference of Pope Boniface VIII. in the struggle between the Bianchi and the Neri, the two factions into which the Florentines were then divided. At the instance of the former and weaker party, Pope Boniface VIII. sent Charles of Valois to quiet the troubles in Florence. Dante resisted this papal interference, which he regarded as dangerous to the state. He and the leaders of the Bianchi were banished in 1302. Thenceforth his life was an almost uninterrupted series of misfortunes. Restoration to his former position—the desire of his heart—was never granted. He was not without friends, who, admiring his genius and commiserating his misfortune, gave him welcome hospitality; but his soul revolted against the eating of other men's bread. He was an inveterate Ghibeline. He hated the Guelphs and the Pope. All power and splendour not lodged in the Emperor was in his view misplaced.

He was the first and the greatest of the modern poets of Italy. It has been said of him that he created the Italian language. In the year 1309, he wrote a work on monarchy, "*De Monarchie*," a valuable source of information respecting the great struggle of the Guelphs and Ghibelines, and its influence on the then Christian world. That struggle was a part of the great convulsion which attended the separation of the civil from the ecclesiastical power. The work that made Dante immortal is his "*Divina Commedia*." Not a single pope or cardinal is admitted by him into his heaven, though

hosts of them are to be found in his hell. He distributes rewards and punishments as the fruits of virtue and vice. His standard is that of his times; elevated, however, by his personal genius and character to a level far above it.

PETRARCH (OR PETRARCA) FRANCESCO—
1304-1374.

Petrarch, born of Florentine parents, at Arezzo, is regarded as the scholarly ornament of the fourteenth century. He was intended by his father for the legal profession, to which, however, he had no tendency. He said, "I could not deprave my mind by such a system of chicanery as the present forms of law exhibit." He devoted himself to the study of the classics and practical philosophy. Cicero and Virgil were his delight. In 1326, after his father's death, he became an ecclesiastic. He did his utmost to induce Clement VI. to endeavour to unite the Guelphs and Ghibelines. He cultivated poetry not less than philosophy and history. When young, he sang the charms of his idol, the beautiful Laura; when old, he blushed at verses that acquired for him the reputation of prince of love poets. Many of his poems are still regarded as the most perfect masterpieces of lyric poetry. His learning, his handsome appearance, his thorough goodness of heart and affable manners, made him universally respected and beloved. He was neither an iconoclast nor a devotee. He said, "I love truth, and not sects. I am sometimes a peripatetic, a stoic, or an academician, and often none of them, but always a christian. To philosophize is to love wisdom; and the true wisdom is Jesus Christ. Let us read the historians, the poets, the philosophers, but let us have in our hearts the gospel of Jesus Christ, in which alone is perfect wisdom and perfect happiness."

The invitation sent by him from his retreat in the country to one of his friends shows the sentiments and character of the man; and when read between the lines gives an excellent picture of the times.—“Here is no tyrant to intimidate, no proud citizen to insult, no wicked tongue to calumniate, neither quarrels, clamours, law-suits, nor the din of war. We are strangers to avarice, ambition, and envy; and have no great lord to whom court must be paid. Everything breathes joy, freedom, and simplicity. Our lot is neither that of poverty nor riches, but a sweet, modest, and sober rusticity. The inhabitants are innocent, tractable, and unacquainted with arms. Our chief is good, affable, and a lover of honest folk. The air is healthy, the winds soft, the country open, the springs pure, and the river full of fish. We have shady woods, cool grottos, green enamelled pastures, and hills sacred to Bacchus and Minerva. As to what respects the mere body, no one takes less trouble about it than myself. But I can tell you in one word, that everything that liveth upon the earth, or that moveth in the waters, is here as in a terrestrial Paradise, to speak in the language of the divines; or as in the fields of Elysium, to speak in that of the poets. A voluptuary in search of the greatest dainties could be easily accommodated in this neighbourhood.”

As a restorer of ancient literature he ranks among the foremost.

BOCCACCIO GIOVANNI—1313-1375.

Boccaccio, the illegitimate son of a Florentine merchant whose family originally came from Certaldo, a village in Tuscany, and by reason of which he gave himself the appellation *da Certaldo*, was intended by his father for commerce. The paternal efforts to fit him for business proved abortive. When a mere child Boccaccio discovered a decided fondness for poetry. When a young man, instead of attend-

ing to his commercial pursuits, he associated himself with several learned men of Florence who had been drawn to Naples, where he then was, by King Robert, a great patron of the arts. One of those learned men was Petrarch. Among his other acquaintances was a natural daughter of the King, who, charmed with his lively and cheerful disposition, his soft and pleasing address, became enamoured of him. For her gratification he composed many pieces, both in prose and verse, in which he often pays homage to her under the name of Fiammetta. After a residence of two years with his father at Florence, he returned to Naples, where he was graciously received by Queen Joanna. It is thought that it was no less to gratify the young queen than his Fiammetta that he wrote his Decameron, which raised him to the rank of the first Italian prose writer. His Decameron contains a collection of a hundred tales, partly borrowed from the Provençal poets. In this book he painted, as it were, on one vast canvas, men of all ranks, character, and ages, together with incidents of every kind, the most extravagant and comical, as well as the most touching and tragic. This book raised the Italian language to a degree of excellence never before attained.

He wrote the life of Dante, several historical works in Latin, the first modern work which, in a collected form, presents the mythology scattered throughout the writings of the ancients, and numerous minor works.

At his own expense he brought Leontius Pilatus, a learned Greek of Thessalonica, from Venice to Florence, and maintained him in his house for three years to instruct him in Greek, in which he became well versed. With his assistance he translated Homer into Latin. Boccaccio was the first to introduce copies of the Iliad and Odyssey from Greece into modern Italy. He used all his influence to induce his contemporaries to learn Greek, and to substitute the study of the ancients for that of the scholastic philosophy. The reputation he attained was such as twice to procure his being sent on

important missions to Pope Urban V., and to secure for him the flattering office of first of the professors appointed by the Florentines to do honour to the memory of the Dante their fathers had persecuted, and whose poems, by reason of the changes in the language, were rapidly becoming more and more obscure. He survived Petrarch, his mentor and the dearest of his friends, but little more than a year. He died at Certaldo, where he had a small estate, December 21, 1375.

WICKLIFFE, WICLEF, OR DE WYCLIFFE, JOHN—
1324-1384.

Wickliffe, often called the "Morning Star of the Reformation," was born about the year 1324, in the parish of Wycliffe, in Yorkshire, whence he derived his name. He studied at Oxford, first at Queen's College, and afterwards at Merton. He was appointed Master of Balliol College in 1361, took his degree of D.D. in 1372, and in 1374 the king gave him the valuable rectory of Lutterworth, in Leicestershire. He had various other appointments.

His first attack upon the authority of the Pope was made in 1356, in his treatise entitled "The last age of the Church." When Edward III. and his parliament resolved to discontinue the homage and tribute exacted by the Pope from King John, and a monk came forward as the advocate of the Church, Wickliffe wrote a reply that secured to him the royal favour and the patronage of John of Gaunt, Duke of Lancaster. In his writings he charged the Pope with simony, covetousness, ambition, and tyranny, and styled him anti-Christ. He was denounced as a heretic at the instance of Gregory XI. The Archbishop of Canterbury and the Bishop of London cited him to appear at St. Paul's. He went, accompanied and supported by the Duke of Lancaster, the Earl Marshal, and a numerous concourse of people. An altercation took place between the nobles and the bishops; the meeting was dis-

solved amidst a general tumult. He was then summoned to Lambeth Palace. He went, the populace flocked in crowds to protect him ; he was dismissed without judgment being passed upon him.

Edward III. died, as did also Gregory VII.

During the struggle between Urban VI. and Clement VII., Wickliffe further attacked the pretension of the Church, and advanced some peculiar notions respecting the Eucharist. On this occasion, not being supported by John of Gaunt, he made a confession of error. He was condemned by the synod for : (1) Deviation from the orthodox language respecting the presence of Christ in the sacrament of the altar ; (2) for teaching that a pope, bishop, or priest, who is in a state of mortal sin, has no authority over the faithful ; (3) for asserting that scripture prohibits ecclesiastics from holding temporal possessions ; and (4) for teaching that where contrition is sincere, confession to a priest is useless.

Notwithstanding, he was allowed to retire unmolested to his rectory at Lutterworth, where he continued his preaching, studies, and writing, till he was ultimately struck down by palsy.

His learning was great, his industry greater. He was a bold and original speculator both in religion and politics. He translated both the Old and the New Testament. Of his numerous writings a portion only have been printed. His manuscripts are to be found in the libraries of Oxford, Cambridge, Dublin, the British Museum, and Lambeth Palace.

CHAUCER, GEOFFREY—1328-1400.

Chaucer was born in London. He studied both at Cambridge and Oxford. When at Cambridge and in his eighteenth year, he wrote his "Court of Love," the oldest poem in English now extant. He studied law, was disgusted with it, and became Yeoman to Edward III., with whom he was soon in

high favour, and by whom he was sent on more than one important mission. He married the sister of Lady Catherine Swynford, subsequently the third wife of John of Gaunt, Duke of Lancaster, and thus became, in time, more closely attached to his patron and friend the Duke of Lancaster. He was appointed Comptroller of the Customs. He allied himself with the Wickliffites in their attempt, in opposition to the clergy, to elect one of their party Mayor of London. The serious disturbance that ensued induced the court, otherwise not unfavourable to Wickliffe and his followers, to side with the clerical party. The clergy and their partisans, who hated all Wickliffites—and Chaucer in particular, as the known and intimate friend of Wickliffe—by their persecution forced him to seek safety at Hainault. His salary, though not stopped, was, owing to the dishonesty of his agents, not duly remitted. He made a secret journey to England, was arrested and deprived of his office. He obtained his liberty, much to his discredit, by disclosing the plans of his party. Covered with obloquy and depressed by poverty, he sought alleviation from his misery in the composition of his "Testament of Love." Fortune, in time, once more smiled upon him. His old patron, the Duke, married the Lady Catherine Swynford, and Chaucer, thus becoming nearly allied to royal blood, was restored to his former office.

After the Duke's death he retired to Donnington Castle, where he wrote his ever famous "Canterbury Tales."

HUSS, JOHN—1373-1415.

John was born at Hussinez, in Bohemia; whence he acquired the name of Huss, or John of Hussinez. Sent by his feudal lord and some others who had been attracted by his native ability, to the University of Prague, he made rapid advances both in learning and the good-will of his superiors. In 1402 he was appointed Bohemian preacher in the Bethlehem

chapel at Prague, and was soon after appointed confessor to Queen Sophia. The writings of Wickliffe attracted his attention. He believed in the justice of that reformer's attack upon the papacy, and became the boldest advocate of reform of his time. He took an active part in the disputes between the German 'Nominalists' and the Bohemian academicians—'Realists.' He sided with the latter and weaker party, and met with powerful enemies. The schism, which resulted in the migration of some 5,000 foreign professors and students from Prague to other universities, was sensibly felt by Huss, then a rector. It exposed the weakness of the priesthood. After 1409, Bohemia refused to recognise Benedict XIII., and subsequently Gregory XII. Nobility and people resented the arbitrary decrees of the papacy. The government of Wenceslaus favoured the anti-papal spirit. Huss publicly censured the lax morality of the priests. He denounced the sale of papal indulgences. He declared masses for the dead, image worship, monastic life, auricular confession, fasts, and the withholding of the cup at the Lord's Supper, to be unscriptural, and pure inventions of spiritual despotism.

The Church was up in arms. Alexander V. summoned Huss to Rome. He did not obey. The Archbishop of Prague commenced his persecution, and prohibited his preaching at the Bethlehem. He preached, nevertheless, and many listened.

John XXIII. caused a crusade to be preached against Ladislaus in Naples; Huss opposed it in Bohemia; his friend Jerome expressed himself upon the subject in violent language. The Pope attributed it to Huss, and excommunicated him. Distrustful of the king of Bohemia, Huss retired to his native home, where he wrote his books entitled respectively "The Six Errors" and "The Church," in which he attacked the doctrines of transubstantiation, belief in the pope and saints, the efficacy of the absolution of a vicious priest, unconditional obedience to earthly rulers, and simony. He declared the Holy Scriptures to be the only rule in matters of religion.

The Council of Constance summoned him to defend his opinions before it. He was no way loath to go. The Emperor Sigismund gave him letters of safe conduct, Wenceslaus gave him three men of rank as his escort. He appeared before the Council and the Emperor on the 5th, 7th, and 8th of June, and on the 6th of July. He defended his doctrines, was required to recant, refused to do so, was condemned to death, and was burnt alive on the 6th July, 1415.

The flames of the *auto da fé* were all that was needed to consummate the villany of the emperor and the clergy, to demonstrate the fact that reason was their abomination, and that life under the rule of such tyrants was not worth the having. The souls of men were filled with hatred against the oppressors. Believers and non-believers in the doctrines of Huss united against the common foe; a bloody vengeance was taken, churches, monasteries, and convents were sacked and burned, priests and monks were slaughtered. The horrors of civil war made thrones and palaces tremble. Nor did the anger kindled by the martyr's fire subside till the Council of Basle was forced to come to terms with the so-called heretics. The compact of Prague was concluded on the 20th November, 1433.

This was not all—Hussites and other sects of independent thinkers were established facts.

PRINTING.

GUTENBERG—1400-1468. CAXTON—1410-1491.

Of all human inventions typography is that which has rendered the greatest service to humanity. It, as it were by magic, infused the blood of the healthy few into the sickly many, and converted the straggling knights-errant of liberty into formidable hosts. As the rising sun breaks through the darkness of night and exposes to man's physical eye the beauties and

dangers that surround him, so the art of printing revealed to waking nations beauties of which they had not even dreamed, and dangers, before unseen, that beset them on every hand. The fragments of the wisdom of past ages that had escaped the storms of human fury, and which lay buried beneath the dust of ages on the shelves of some of the religious houses, were by this mighty art brought to light and multiplied; and tens of thousands became the possessors of the knowledge that for ages had been confined to the bosoms of solitary individuals.

It is perhaps well that the honour of the grand discovery cannot with certainty be accredited to any one man. Englishmen are justly proud of their Caxton, for though he was certainly not the inventor, he introduced the art to a people who were not slow to appreciate and avail themselves of it. Mentz is justly proud of its Gutenberg, usually regarded as the inventor of printing with movable types. The credit has, however, been claimed for Lawrens Koster, the vintner of Haerlem, and also for others.

It is admitted by Christian writers that the art of printing was fully established in China early in the tenth century, that is to say, nearly 500 years before its introduction into Europe. The Chinese themselves claim to have known the art long before the commencement of the Christian era.

The Chinese method of printing is this:—The work intended to be printed is transcribed upon thin transparent paper, each written sheet is glued with its face downwards upon a smooth block of wood; the engraver cuts the wood away in all those parts upon which he finds nothing traced, and thus leaves the transcribed parts ready for printing. Thus, there must be as many blocks as there are pages of the book. The blocks are necessarily not of the least use in the printing of any other work. The system, however, has one advantage in common with stereotype. Impressions of a work may be thrown off as and when required.

Block printing in Europe with single pieces of wood can be traced back as far as the thirteenth century. The introduction of playing cards early in the fourteenth century is supposed to have given an impetus to the art of wood engraving. From simple figures, the professors of the art came to engrave historical or biblical subjects, some with, others without, a text or explanation subjoined. These "Books of Images," as they were called, may be regarded as the earliest attempts at book printing in Europe. The great discovery was yet to be made that was to emancipate the art from its thralldom—the discovery of the practicability and utility of movable types.

JOHN GUTTENBERG, more properly Gutenberg, was born at Metz about the year 1400. In 1436, when living at Strasbourg, he entered into a contract with one Andrew Dryzchn (Dritzchn) and others, binding himself to teach them all his secret and wonderful arts, and to employ them for their common advantage. Dryzchn died. George, the brother of the deceased, instituted a lawsuit against Gutenberg, in which he succeeded.

When and where the first attempts were made at printing cannot be determined, for Gutenberg never attached either name or date to the works he printed. This, however, is certain, that about 1438 Gutenberg made use of movable types of wood. In 1450 Gutenberg entered into partnership with one John Faust, or Fust, a wealthy goldsmith of Mentz, who furnished the money to establish the press in which the Latin Bible was first printed. This partnership was dissolved, and Gutenberg was involved in a second lawsuit. As Gutenberg could not, or would not return the money advanced by Faust, he, Faust, was allowed to retain the press, which he improved and continued to use in conjunction with one Peter Schoeffer. By the patronage of Conrad Hummer, a counsellor of Mentz, Gutenberg was again enabled to establish a press in the following year, and to print several books. In 1457 the Psalter was

printed with a typographical elegance which sufficiently proves the rapid advances of the new art and the diligence with which it was cultivated.

Gutenberg's printing office remained in Mentz till 1465, about which time he was ennobled by Adolphus of Nassau. He died February 24th, 1468.

PETER SCHOEFFER, who afterwards became Faust's son-in-law, was taken into partnership with Faust after his lawsuit with Gutenberg, and to him belongs the merit of inventing matrices for casting types. Each individual type had theretofore been cut in wood or metal. This discovery so greatly facilitated the art that Schoeffer was enabled to print upwards of fifty books. He died about the year 1492.

WILLIAM CAXTON was born in Kent about the year 1410. He served an apprenticeship to Thomas Large, a London mercer. On the death of his master, Caxton went to the Netherlands as agent for the Mercers' Company, in which situation he continued about 23 years. He was commissioned, in conjunction with Richard Whitchell, to conclude a treaty of commerce between Edward IV. and Philip, Duke of Burgundy. He appears subsequently to have held some office in the household of Duke Charles, the son of Philip, whose wife, the Lady Margaret of York, became his patroness. While abroad he appears to have made the acquaintance of Faust, and from him to have learned the art of printing. At the request of his patroness he translated from the French a work which he entitled the "Recuyell of the Historyes of Troye," by Raoul le Feure, which he printed at Cologne, 1471, in folio. A copy of this book, which is regarded as the first book printed in the English language, was purchased by the Duke of Devonshire in 1812, for £1,060 10s. He subsequently printed several other books abroad, chiefly translations from the French. In 1474 he set up his press in Westminster Abbey, where he

printed "Ye game and playe of the Chesse," generally admitted to be the first typographical work executed in England. He subsequently produced between fifty and sixty volumes, most of which were composed or translated by himself. He died about 1492.

COLUMBUS, CHRISTOPHER.*

(IN ITALIAN, CHRISTOFORO COLOMBO; IN SPANISH, SHRISTOVAL COLON)—1436-1506.

Columbus was born at Genoa. His father, a wool comber and an enlightened man in easy circumstances, sent him to Pavia, where he studied geometry, geography, astronomy, astrology, and navigation, in order to fit him for the desire of his heart, a sailor's life. He had two brothers, Bartholomew and Diego. When 14 years of age he went to sea in the merchant service. At that time it was the practice of the more wealthy shipowners of the Italian republics to arm their vessels. Religious animosity and commercial jealousies were the causes of constant feuds between themselves, the Spaniards, the Arabs, and the Mohammedans. At times these merchants let their armed vessels and crews to reigning sovereigns, to augment the strength of their little navies. It appears that at an early period Columbus abandoned the purely mercantile for this naval life, and that he spent the intervals between his naval expeditions in his favourite study of geography, and added to his slender income by the designing, engraving, and sale of marine charts.

In early manhood, when he had the command of a galley in one of these squadrons acting against the Venetians, his ship caught fire and was wrecked near Lisbon. Columbus was saved by swimming ashore. As Portugal was then famous for her

* The matter of this sketch is derived from "Christophe Colomb, par A. de Lamartine, Paris, 1883."

maritime expeditions, Columbus repaired to Lisbon, where he found countrymen and relations, and hoped to find employment congenial to his tastes. He married Felippa, the daughter of Bartolemew de Palestrello, a distinguished navigator, who had left many nautical instruments, charts, and manuscripts, which proved of great value to Columbus. They had one son, Diego. Felippa died when Diego was but a boy.

When the idea first presented itself to his mind we do not know; but we do know that the study of the charts and globes of his time convinced Columbus that they did not, and could not, rightly represent the earth's surface. If we take a terrestrial globe and cover the vast continents of America and Australia, and the islands of the Indian Ocean, with paper coloured to represent water, and revolve the globe in that condition in our hands, and if to all that portion of Asia which embraces India and the Chinese Empire we give the name India, we have before us the then known world, and are in a position to form some idea of the grandeur of the conception of Columbus. We must add, however, two facts, before we realise it, viz.: (1) The extent of Africa southward was not then known, for the Cape of Good Hope had not been discovered. The idea that India might be reached by sailing round the south of Africa was then a favourite topic of conversation. (2) There was a strange confusion in the mind even of the more intelligent, between the primitive notion that the earth was a plane, and the more advanced idea that it was a globe. That people could exist at the antipodes involved the notion of their living upside down—a proposition regarded as simply absurd.

Though Columbus, so far as we know, never questioned the possibility of reaching India by rounding Africa, he maintained that there was a shorter route. He was satisfied that the existing charts did not faithfully represent the earth's surface; that the water, as shown, was out of all proportion to the land; he concluded, therefore, that India must extend much further into the ocean westward than was represented. The

idea of the existence of the continent of America never entered his brain. His belief was that there must be land where, or about where, he subsequently found that land did exist. His project was to sail through the then unknown waters westward and find it. The globe, or rather the known globe, was imperfect; he felt it to be his mission on earth to complete it. To demonstrate the truth of his theory he needed ships, and men to man them. He had no money of his own. Assistance was denied him both at Genoa and in Portugal, for none able to risk the undertaking believed in it. He resolved to offer to Spain the new world rejected by the place of his birth and by that of his adoption.

In the Spring of 1471, weary and worn, two travellers sought shelter from the burning Andalusian sun in the shade of the portico of the little monastery of Santa Maria de Rabida, near the small seaport of Palos. The elder was Columbus, the younger the lad Diego. The tall and majestic form, the noble brow, the open countenance, the pensive glance, the soft and graceful lips, and the light brown hair tinged with grey not warranted by the years of the elder, bespoke no ordinary man.

Father and son were invited in, refreshed and fed by the hospitable monks. The prior, Juan Pères de Marchinna, formerly confessor to Queen Isabella, was a noble-hearted and learned man who had exchanged the intrigues and vanities of court life for the tranquillity and study of the monastery. He saluted the stranger and caressed his child. At his invitation Columbus gave him the history of his life, narrated the circumstances that had led him there, spoke of his grand idea, his fears and anxieties as to its accomplishment.

The prior listened in silent admiration, revolving in his mind his power to aid the man who spoke as none other he had ever heard, though he himself was well versed in the sciences involved in navigation.

He promised nothing, but bade Columbus make the monastery his and his child's temporary home. He not merely

lodged, but fed and clothed them. He invited Fernandez, a physician, and Pierre de Velasco, a famous navigator, his two intellectual friends in Palos, to meet Columbus. The four met evening after evening—Columbus, at last, had believers. The prior resolved to act. The then confessor of the queen was Fernando de Talavera, his immediate successor in that office, and his old friend. The prior, in fact, had recommended him to the queen. The prior knew the nature of the queen, and felt certain that, with her, to understand was to espouse the cause of Columbus. He trusted Fernando.

The prior wrote a long letter to Fernando, detailing his knowledge and opinions, and begging him to secure for Columbus an audience with Ferdinand and Isabella; he furnished Columbus with suitable apparel, a mule, a guide, and money, and handed to him the letter to deliver to Fernando, promising to take charge of Diego till his return.

Columbus reached Cordova, where the court then was. The letter was delivered to Fernando and read by him with the incredulity of prejudice. No mention of it, or of Columbus, was made by him to either king or queen. Columbus waited, his purse was emptied, he returned to his chart-making and selling to gain his daily bread.

Globes and charts in hand, he obtained interviews with some of the illustrious, and among others Mendoza, Archbishop of Toledo. The archbishop was at first terrified; the theory of Columbus was in conflict with the Bible. The simple yet lofty piety of Columbus, which revealed the works of God in their grandeur, dispelled his first notion of blasphemy. He obtained for Columbus—two years after his arrival at Cordova—an interview with Ferdinand and Isabella. Referring to that interview, Columbus wrote—"Brooding on what I was, I was overwhelmed with humility, but reflecting on what I bore, I felt myself the equal of crowned heads. I was no longer myself—I was the instrument of God, chosen and pointed out to accomplish a grand design."

Ferdinand listened with gravity, Isabella with enthusiasm. To Isabella, Columbus appeared a messenger from heaven.

Ferdinand ordered a council to be assembled at Salamanca, under the presidency of Fernando de Talavera. Clerics, astronomers, geographers, mathematicians, and the learned in general, were to meet and discuss the project.

Two or three obscure monks of the monastery of St. Etienne de Salamanca, alone of this assembly of savants, deigned to give Columbus a patient hearing. The rest regarded his utterances as the ravings of an imbecile or a madman. The Bible, the prophets, the psalms, the gospels, the fathers of the church were all cited against him. Lactance said—"Can anything be so absurd as to believe that there are men at the antipodes with their feet opposite to ours, who walk with their feet in the air, and their heads beneath, to suppose that there is a part of the earth where everything is upside down, where the trees spread their roots in the air, their branches beneath?" St. Augustine had gone further; he declared the simple belief in the existence of the antipodes to be heresy, for, said he, that would be to suppose the existence of men not descended from Adam, whereas the Bible says that the whole human race is descended from the same father.

Diego de Denza, afterwards archbishop of Toledo, was the only man of position who dared to defend the doctrines of Columbus. Conference after conference was held. No conclusion had been arrived at, when the war was renewed by Ferdinand against the Moors of Granada. Years rolled on. The Moors were defeated. In 1492 the council re-assembled at Seville. Diego de Denza stood forth as the champion of Columbus. The council changed its tone, and contented themselves, when rejecting the scheme, by saying, if it was not impious, it was, at all events, chimerical; and that for the crown to embark in it was to peril its dignity.

Isabella remained firm; Ferdinand gave hope of assistance in the future.

The Duke of Medina Sidonia, and the Duke of Medina Celi, each the owner of a port and many vessels, smiled at the suggestion of Columbus that they should embark in the enterprise at their private cost.

Ruined in purse, and dejected in spirit, Columbus returned on foot to the monastery of Rabida. Tears ran down the cheeks of the big-souled prior when he saw his friend on foot, even worse clad than when he first beheld him. They wept together.

The prior again sent for Fernandez ; he also sent for Alonzo Pinzon, a wealthy navigator, and for Sebastian Rodriquez, an experienced pilot.

Pinzon promised to supply and equip vessels, provided the government would give its sanction.

The prior wrote, not to the confessor, but to the queen. He appealed to her conscience rather than to her cupidity. The acquisition of empire was less to him than the revelation of the mighty works of God, and the salvation of countless souls.

Columbus refused to bear the letter ; his confidence in the Spanish court was gone. He began to entertain the long rejected overtures of France and England.

Juan Pères sent the letter by the hand of the pilot, Rodriquez. In fourteen days after his departure he returned from Granada in triumph. The queen ordered the venerable prior to her court. He went, and filled the bosoms of the queen and her favourite, the Marchioness de Maya, with pious enthusiasm. The queen sent money to Columbus for his immediate necessities, and ordered him to court. He went. He discussed his conditions with the ministers of Ferdinand. He demanded the rank and privileges of an admiral, and the title and authority of viceroy of all the lands that he should discover.

The ministers treated his demands with scorn. Fernandez de Talavera, chief of the council, said—"A beggar treats as a king with kings."

Columbus refused to abate one jot of his demand. Mount-

ing his mule—the present of the queen—Columbus set out for Cordova on his way to France. Isabella, hearing of his departure, was indignant with her ministers, whom she accused of daring to barter with God the price not merely of an empire, but of thousands of souls left in idolatry.

Ferdinand, hesitating at the expense, referred to the condition of his exchequer. Isabella exclaimed—"I will take the cost upon my personal crown of Castile. My jewels and diamonds shall be pawned to meet the charge of the expedition."

The treaty between Ferdinand, Isabella, and Columbus was signed on the 17th April, 1492.

New difficulties presented themselves. The royal treasury was empty; vessels needed for other purposes were absent; sailors refused to embark; incredulity and terror caused desertion and open revolt. Her Majesty was powerless.

Once more the prior assembled his friends of Palos. The three brothers Pinzon were rich; they listened to the entreaties of the venerable prior; they not merely placed three vessels,—the *Santa Maria*, the *Pinta*, and the *Niña*—at the disposal of Columbus, but undertook to equip them, to find sailors to man them, and in order to give confidence to the men, Martin Alonzo Pinzon and Vincenti Yanes Pinzon resolved themselves to take the command of the two smaller vessels.

Columbus hoisted his admiral's flag on the *Santa Maria*, the only one of the three decked from stem to stern, on Saturday the 4th August, 1492.

As the little fleet, bearing in all 120 souls, and resembling rather a fishing or a coasting party than an exploring expedition, weighed anchor, the mothers, wives, and sisters of the men, with eyes filled with tears, cursed the man whose wild dreams had robbed them for ever of their beloved ones.

A favouring wind soon carried the explorers to the Canaries; the *Pinta*, however, had broken her rudder and was leaking; three weeks were spent on the Canaries, in the fruitless search for a vessel to replace her.

The Pinta repaired, and an extra sail fitted to the Nifia, the little flotilla left behind it the last known land.

An eruption of Teneriffe filled the souls of the sailors with dread ; they saw in it the flaming sword of the angel that drove man from the Garden of Eden, forbidding them again to enter. The admiral went from ship to ship to allay the panic ; he explained to the men the natural phenomena.

When 200 leagues from Teneriffe the needle deviated a whole degree ; the pilots became terrified. Columbus was bewildered, for he could not explain the phenomenon ; nor can the greatest scientists of the present day. He concealed his emotion and invented a special explanation. He ascribed it to the influence of certain stars. Confidence was restored, the sight of a heron and a tropical bird on the following day, flying round their masts, revived the spirits of the men. Unknown plants were seen floating on the waves ; but as days rolled on, hope gave way to despair. Columbus passed the nights on deck with his pilot in the study of the stars, his only guide. The men began to ponder on the fact that the wind had never varied, and to fear the possibility of return with a wind always against them. They began to calculate the days, and in whispers to curse the dogged perseverance that sacrificed 120 men to gratify the dreams of one. On the 20th September there was a dead calm. The dread of a never-changing wind was gone, and when in the evening some small birds known to make their nests in human habitations appeared, hope was rekindled. Weeds that entangled the rudders and made the situation perilous, compelled Columbus to change his course. Columbus again professed to understand what sorely bewildered him. The calm, which for the moment delighted as it dispelled one ground of fear by its continuance, gave rise to another, and one still more terrible. The line was reached, the sails hung listless by the masts, but, though no cause of motion could be discovered, the sea was suddenly upheaved. Subterranean convulsions were apprehended. A huge whale was sleeping on the waters. The crew imagined

monsters devouring the ships. They collected in groups, sullen and angry, at the foot of the masts; they murmured aloud; they spoke of forcing the pilots to turn about, of throwing the admiral overboard as a madman who left no choice to his companions but suicide or murder. Columbus, by their gestures, knowing what was passing in their midst, dared them by his attitude, and disconcerted them by his confidence.

Nature came to his rescue, the wind rose, the sails were filled, the vessels glided on. Before nightfall Alonzo Pinzon, who commanded the Pinta, and who was sufficiently close to the admiral for the two to communicate, from his poop raised the cry of "Land!" The seamen re-echoed the cry of safety, of life, and of triumph, and throwing themselves on their knees, chanted "Glory to God in heaven and on earth." The hymn finished, they climbed the mast. Columbus alone doubted, but he did not show it. Sunrise dispelled the illusion. The admiral resumed his course westward.

Another calm, a cloudless and unbounded sky. Innumerable dolphins made the ocean seem all alive, flying fish, darting up, fell on the decks; all nature seemed to concert with Columbus to raise fresh hopes and make the men forget the passing days.

On the 1st October the men believed that they had only made 600 leagues beyond the ordinary route of vessels. The admiral's private log showed 800. Columbus under his calm exterior was troubled. He thought that he must have passed unnoticed the islands of some archipelago.

On the 7th October, the Niña, then ahead, fired her gun, the agreed signal of land. When the admiral neared her, he found that her captain had been deceived by a cloud. The reaction following the fresh raised joy plunged the crews into still deeper despair. Columbus again changed his course, and abandoning his ideal line, followed the wake of the birds.

Murmur was turned to clamour. The admiral, nothing daunted, assumed an impassable countenance, invoked authority

against sedition, and called upon heaven to judge between the men and him. He did not shrink. He pledged his life on his promise, speaking with the air of a prophet, confident as to the future, he said—"Suspend your incredulity and determination to return for three days." He swore that if during the third day land was not seen on the horizon, he would yield to their wishes and take them back to Europe.

Columbus had seen what others had not seen. Things visible to all tell different tales. The oath was politic, it was bold, but not so reckless as to some it might then appear.

At sunrise on the second day fresh broken boughs were seen floating on the water, as also a plank that bore the marks of human labour, and other signs of not far distant land.

The admiral had promised a reward to the man who first should discover and announce the land. When pacing the deck alone at midnight of the second day, the 11th and 12th October, 1492, peering through the darkness into the distance, he saw, or thought he saw, a fire-light, alternately appearing and disappearing. In an under voice he summoned Guthriz, a Spanish gentleman of the court of Isabella, to his side, and, pointing in the direction, told him what he thought he saw and asked if he saw the same. Guthriz said that he saw a light that seemed to be going in and out. Columbus summoned Rodrigo Sanchez de Segovie, another of his confidants. He also confirmed the fact. At early dawn, when all but the night watch slept, the *Pinta* fired her gun and startled Columbus from the reverie into which he had fallen after the night's discovery.

The sleepers aroused, looked and beheld the promised land. The sails were furled. As the rising sun dispersed the mist, a lovely country, rich in foliage, grew upon the eye; before them lay a vast amphitheatre dropping into the waters on either side, rising to the summits of the mountain background. The fragrance of the perfumes, mingling with the sweet song of birds, left no sense ungratified.

Huts, scattered here and there, some in clusters, others isolated, indicated a numerous population, and as the vessels neared the land, groups of men, women, and children, rather astonished than frightened, were seen between the trees coming timidly toward the shore.

Columbus restrained the impetuosity of his crews, now mad with joy. He determined that the landing should be effected with the dignity becoming the occasion. He dressed himself in full uniform, threw his purple mantle over his shoulders, and taking in his right hand the imperial flag bearing the emblem of the cross and the initials of Ferdinand and Isabella, surmounted by the crown, entered his launch and led the van, followed by the launches of Alonzo Pinzon and Yones Pinzon. When he reached the shore, going on his bended knees, he kissed the earth and wept.

Rising and recovering himself, he said in Latin—"Eternal and Almighty God, who, by the creative power of thy word, brought the firmament, the water, and the earth into being; let thy name be universally adored and glorified; let thy majesty and universal sovereignty be exalted from generation to generation, by the meanest of thy servants; let thy holy name be known and spread throughout this hitherto unknown portion of thine empire."

He baptised the island in the name of Christ—the island of San-Salvador. His lieutenants, his pilots, and his sailors, in a rapture of joy and reverence for the mighty man, fell at the feet of the admiral, kissed his hands and garments, and for the moment realized the majesty, if not the divinity of genius. Columbus, satisfied that the island belonged to the mainland of India, styled its inhabitants Indians.

Referring to the island of Cuba, Columbus wrote—"This is the most lovely island that the eye of man ever rested on. One would like to live here for ever. The notion of pain or death never enters the mind."

Writing of the people, he says—"Nature here is so prodigal,

that possession has not created the sentiment of avarice or cupidity. These people seem to live in a golden age, happy and content, in the midst of gardens without fence or ditch. They are loyal, the one to the other, without laws, books, or judges. They regard anyone who takes pleasure in ill-doing as a detestable being. The horror of the good at the evil-doer, appears to be their one governing principle." "They are naked, it is true, but they are clothed with modesty and candour."

Las-Casas tells us that once, when the natives and Spaniards could converse together, an old chief who had witnessed one of the Spanish religious ceremonies, after expressing pleasure, said to Columbus—"Learn from me what our ancestors told our fathers, and what they have told us. After the spirits of men are separated from their bodies, by the will of the divine beings, some go into a country where there is no sun and no trees, the others go into regions of light and delight, according as they have merited good or ill while here, by doing good or ill to their fellows. If, then, you die like us, take care not to do harm to us and to those who do not injure you."

I have endeavoured to sketch so much of the life of Columbus as is necessary for the purpose of this essay. The fair fame of Spain is stained with stains never to be obliterated of barbarity to those happy, innocent people, and of ingratitude toward the man of whom Lamartine says—"He completed the universe, he achieved the physical unity of the globe. He far exceeded any man who had lived before him in advancing the work of God—the moral unity of the human race. The work which he accomplished was too vast to be worthily recompensed by giving to the fourth continent his name. America does not bear his name. The human race brought together and made one by him will bear it over the whole earth."

MACHIAVELLI, NICHOLAS—1469-1527.*

Machiavelli was born at Florence, of a noble family, the members of which had enjoyed the highest dignities in the state, though at the time of his birth they were poor. His talents secured for him at an early age the office of chancellor of the Second Court, and not long after advanced him to the post of secretary to the Council of Ten. He was four times plenipotentiary at the French court, twice at that of the Pope, and twice also at that of the Emperor Maximilian. He was sent on an important mission to Cæsar Borgia, the natural son of Pope Alexander VI., and followed him to Sinigaglia. He remained in Borgia's camp for three months, till January, 1503. In short, his services were called into requisition upon every important occasion. Scarcely had he returned from one embassy before he was directed to prepare for another, till the government by which he had been employed was overthrown by the arms of Spain, in September, 1512, when the family of the Medici returned to their native walls under the protection of a foreign ally. No sooner was the new government installed than it commenced the persecution of the partisans of the old. Machiavelli was deprived of his office and banished; the sentence of banishment was, however, commuted to exclusion from the palace. In 1513 an extensive conspiracy against the Medici was discovered. Machiavelli, suspected of participation in it, was accused, put to the torture, and thrown into a loathsome dungeon. No admission, however, of complicity was wrung from him, nor did his fortitude forsake him, for from his prison he wrote a humorous sonnet to his brother. When ultimately released, he retired to his country house at San Cascians, about eight miles from Florence, where, to divert his mind from his misfortunes and the miseries of poverty, he wrote his immortal

* The book adopted is Bohn's Standard Library, "Machiavelli," 1854.

work—"The Prince," intended in the first instance for the private perusal of Giuliano, and subsequently for that of Lorenzo de Medici. It was first published at Rome in 1532, five years after its author's death, under the sanction of Pope Clement VII. As no literary work has possibly given rise to more conflicting comment, and as I regard it as the foundation of the modern sciences of political and moral philosophy, such extracts as will give the reader not familiar with it, a fair notion of its contents, may prove acceptable, and will facilitate our present enquiry.

The writings of Machiavelli may be arranged under four heads—history, politics, belles-lettres, and military treatises. His history of Florence, written at the command of Clement VII., and which covers the period from 1215 to 1492, is admittedly a master-piece. His numerous letters, preserved in the Florentine Archives, show that his efforts were uniformly directed to the peaceful settlement of his country's difficulties, to the providing of an upright and strict administration of justice, to the making of the taxes as light as possible, and to the keeping of a watchful eye on all matters that could affect the public good. In the dedication of his "Prince" to Lorenzo de Medici, Machiavelli declares his most valuable possession to be the knowledge that he has of the actions of celebrated men, acquired by a long experience of modern times, and a diligent perusal of the ancients. The result of that experience and study is summarised by him in "The Prince" in twenty-six short chapters. He enunciates distinct propositions, most of which are illustrated by historical facts in a manner which conclusively proves the author to be a man of extraordinary attainments, penetration, and frankness. His avowed object was to induce the prince to undertake the task of driving the foreigners out of Italy, to show how monarchy had been attained and maintained, and, consequently, how it might then be attained and maintained. He addressed himself in the language of his times to a man of his times, imbued with the

notions and sentiments of his times. The basis of his position is—The times are perilous, the enterprise I suggest is glorious, but the task is dangerous ; you must either circumvent or be circumvented.

He says that a statesman worthy of the name is like the skilful physician who detects consumption when easily curable, and when the evidence of its existence is invisible to the vulgar eye, whereas the man who only realizes danger when it is patent to everyone, and too late to be averted, is no statesman. He divides all states and governments into two classes, viz., republics and principalities. He confines his observations to principalities, and *inter alia* says :—

The rational exercise of ordinary faculties is sufficient for the hereditary prince who merely takes the place of his predecessor.

One change ever produces an increasing inclination for another. To that fact he ascribes the difficulty of governing newly acquired principalities, and contends that in order to obtain a firm footing, the new comer must engage the favour and interests of the inhabitants.

Where a neighbouring country is annexed, the inhabitants of which speak the same language as the conqueror, little more is required than to extirpate the family of the prince who last ruled over them, and that is especially so where the people had not been accustomed to liberty.

Conquerors should not make alterations in the law, or increases in the taxes.

Where the language, the manners, the intellectual organization of the conquered differ from those of the conqueror, the difficulties of the conqueror are proportionally increased.

A wise prince anticipates possible evil.

Nothing is so natural, or so common, as the thirst for conquest, and when it can be satisfied, men deserve praise rather than censure.

Disgrace is the inevitable consequence of attempting more than one has ability to execute.

An evil should never be submitted to merely to prevent a war, for wars are not so averted, they are only deferred, and that to the detriment of the submissive.

I told Cardinal D'Ambois that the French knew nothing of politics, otherwise they would not have suffered the Church to grow so powerful.

The prince who contributes to the advancement of the power of another, damages his own.

There are three ways of maintaining newly-conquered states that have been accustomed to liberty and self-government, viz., I. To ruin them. II. To inhabit them. III. To leave them in the enjoyment of their laws, merely rendering them tributary, and establishing in their midst a small council to form a government, which may keep the country in peace.

Men generally follow the beaten paths which others have formed. Their conduct is merely imitation.

A wise man follows the paths traced by superior genius, and imitates those only who have excelled. If he cannot equal, he may, at least, in some respects, resemble.

Nothing is more difficult or dangerous, or the success of which is more doubtful, than the introduction of new laws.

Those who from a private station have ascended to the dignity of princes by the favour of fortune alone, meet with few difficulties in their passage, but encounter many in maintaining themselves on the throne.

Unless a man possesses superior genius or courage, how can he, who has always been accustomed to a private station, know how to govern others.

If the measures Caesar Borgia adopted to make his position secure did not suffice, it was not his fault, but the perversity of fortune.*

* He explains the dangers of the duke's position, and says:—The duke determined therefore neither to depend on fortune nor on the arms of another prince. He began by weakening the party of the Orsini, and that of the Colonna at Rome, by corrupting all the persons of distinction who adhered to

Mankind injure others from motives either of hatred or fear.

It is an error to suppose that new obligations will extinguish the memory of former injuries in the minds of great men.

It must not be called virtue to murder one's fellow citizen, or to sacrifice one's friends, or to be insensible to the voice of faith, pity, or religion. These qualities may lead to sovereignty, but not to glory.

Cruelty may be well or ill applied—I say well applied, if we may indeed say well of that which is evil—when it is only once exercised, and that when it is dictated by the absolute necessity of self preservation; and even then it should be converted as much as possible to the benefit of the public.

Above all things a prince should live with his subjects on such terms that no change of fortune may oblige him to alter his conduct towards them.

The only resource upon which a prince can rely in adversity is the affection of his people. Let no one quote the old proverb against me—"That he who relies on the people builds on a sandy foundation."

A wise prince should at all times so conduct himself that at all times and under every change of circumstances his subjects may feel the want of his directing hand, and then he may rely on their unshaken fidelity.

them, either by bribes, appointments, or commands suited to their respective qualities, so that in a few months a complete revolution was effected in their attachments. They all came over to the duke. Having thus humbled the Colonna, he waited his opportunity to destroy the Orsini. It was not long before one offered, of which he did not fail to avail himself. By artifice and dissimulation the Orsini were induced to attend the duke at Sinigaglia, where they were all put to death. Having thus exterminated the chiefs and converted their partisans into his friends, the duke placed his power on a solid basis. To establish order in Romagna the duke made Ramiro d'Arco, a cruel but active man, governor. When Ramiro had accomplished his task, the duke sent a worthy and upright magistrate to administer the law, and, to appease the discontent excited by the conduct of Ramiro, secured his assassination in the market place, &c., &c. Whoever finds himself situated as the duke was, cannot have a better model than Borgia.

Men are naturally cautious of engaging in difficult enterprises without some appearance of success. It is never prudent to attack a prince whose capital is in a good state of defence, and who is on good terms with his subjects.

Such is the nature of mankind that they become as strongly attached to others by the benefits they render, as by the favours they receive.

Ecclesiastical princes are the happiest and most secure princes in the world. As they are under the superintendence and direction of an Almighty Being whose dispensations are beyond our weak understandings, it would be presumptuous in me to discuss these matters.

We may safely aver that the discord between the barons always originated in the ambition of the prelates.

The principal foundations of all states, whether ancient, modern, or mixed, are good laws and a proper military force to support them.

Experience has shown that either princes or republics can effect great achievements of themselves, and that mercenary soldiers must inevitably injure them.

Auxiliary troops, borrowed from allies, may perhaps be useful to the state by whom they are provided, but are always injurious to the prince by whom they are employed.

The first cause of the decline of the Roman Empire arose from taking the Goths into their pay, which brought those barbarians into repute at the expense of the Roman soldiery.

It is a generally received maxim that there is nothing so weak as a power that is not supported by itself; that is to say, that is not defended by its own citizens or subjects, but by foreigners, whether allies or mercenaries.

Princes ought to make the art of war their sole study and occupation, for it is peculiarly the science of those who govern. It is by the neglect of this art that states are lost, and, by cultivating it, they are acquired.

The prince should take the utmost care that his troops are

well disciplined, and regularly exercised. Alexander the Great immortalised himself by following the example of Achilles, Cæsar by imitating Alexander, and Scipio by copying Cyrus.

The manner in which men now live is so different from the manner in which they ought to live, that he who deviates from the common course of practice, and endeavours to act as duty dictates, necessarily ensures his own destruction. Thus a good man, and one who wishes to prove himself so in all respects, must be undone in a contest with so many who are evilly disposed.

It is for the interest of a prince to be accounted liberal, but dangerous so to exercise his liberality that he is thereby neither feared nor respected.

A prince who cannot be liberal without prejudicing his state should not trouble himself much about the imputation of being covetous.

He who is too liberal cannot long continue so ; he will become poor and contemptible, unless he grinds his subjects with new taxes, which cannot fail to render him odious to them.

A prince ought unquestionably to be merciful, but should take care how he executes his clemency.

When it is necessary for a prince to restrain his subjects within the bounds of duty, he should not regard the imputations of cruelty, because, by making a few examples, he will find that he really shows more humanity in the end than he who, by too great indulgence, suffers disorders to arise, which commonly terminate in rapine and murder.

There is a medium between a foolish security and unreasonable distrust.

I think, if it is necessary to make a selection, that it is safer to be feared than loved.

A prince ought to make himself feared in such a manner that, if he cannot gain the love, he may at least avoid the hatred of his subjects ; and he may attain this object by respecting his subjects' property and the honour of their wives.

It is unquestionably very praiseworthy in princes to be faithful to their engagements.

There are two ways of deciding any contest, the one by laws, the other by force. The first is peculiar to man, the second to beasts ; but when laws are not sufficiently powerful, it is necessary to recur to force ; a prince ought, therefore, to understand how to use both these descriptions of arms.

As a prince must learn how to act the part of a beast sometimes, he should make the fox and the lion his patterns.

A prudent prince cannot and ought not to keep his word, except when he can do it without injury to himself, or when the circumstances under which he contracted the engagement still exist.

I should be cautious in inculcating such a precept if all men were good.

It is necessary to disguise the appearances of craft, and thoroughly to understand the art of feigning and dissembling, for men are generally so simple, and so weak, that he who wishes to deceive, easily finds dupes.*

I maintain that a prince, and especially a new prince, cannot with impunity exercise all the virtues, because his own self-preservation will often compel him to violate the laws of charity, religion, and humanity.

All men have eyes, but few have the gift of penetration.

There is a prince now alive who even preaches the doctrines of peace and good faith ; but if he had observed either the one or the other he would long ago have lost both his reputation and his dominions.

Subjects will live contentedly enough under a prince who neither invades their property nor their honour.

* One example taken from the history of our own times will be sufficient. Pope Alexander VI. played during his whole life a game of deception ; and, notwithstanding that his faithless conduct was extremely well known, his artifices always proved successful. Oaths and protestations cost him nothing ; never did a prince so often break his word, or pay less regard to his engagements.

A prince whose conduct is light, inconstant, pusillanimous, irresolute, and effeminate, is sure to be despised.

A prince has two things to guard against, the machinations of his own subjects, and the attempts of powerful foreigners.

History is filled with conspiracies ; but how few have been crowned with success.

Content the people, and manage the nobles, and you have the maxim of wise governors.

It is by conquering difficulties that princes raise themselves to power. Fortune cannot more successfully elevate a new prince than by raising enemies and confederates against him, thus stimulating his genius, exercising his courage, and affording him an opportunity of climbing to the highest degree of power.

Fortresses are useful or dangerous according to circumstances.

There is no better fortress for a prince than the affection of his people.

Nothing is more likely to make a prince esteemed than great enterprises and extraordinary actions.

A prince should invest his actions with a character of greatness, and above all things avoid weakness and indecision.

They cannot be real friends who ask you to stand neuter. Irresolute princes frequently embrace a neutrality to avoid some present inconvenience, but they meet their ruin by such a course.

Princes ought to honour talent and protect the arts, particularly commerce and agriculture.

A proper choice of ministers is of no small importance to a prince, for the first opinion that is proved of his capacity arises from the persons by whom he is surrounded.

In the capacities of mankind there are three degrees : one man understands things by means of his own natural endowments ; another understands things when they are explained to him ; and a third can neither understand them himself, nor when they are explained by others.

I must not forget to mention one evil against which princes should ever be upon their guard, and which they cannot avoid, except by the greatest prudence, and this evil is the flattery which reigns in every court.

Princes have no other way of expelling flatterers than by showing that the truth will not offend.

It is well known that men think much more of the present than of the past, and that they never seek for change so long as they find themselves comfortable.

As we confessedly have the possession of a free will, it must, I think, be allowed that chance does not so far govern the world as to leave no province for the exercise of human prudence.

Those princes who adapt their conduct to circumstances are rarely unfortunate.

I think that it is better to be bold than too circumspect; because fortune is of a sex that likes not a tardy wooer, and repulses all who are not ardent. She declares also more frequently in favour of those who are young, because they are bold and enterprising.

COPERNICUS, OR ZEPERNIC, NICHOLAS— 1472-1543.*

"A century and a half before Christ, Hipparchus, in his observatory at Rhodes, made the first catalogue of the stars, and representing the motions of the sun and moon by epicycles revolving upon circular orbits, he compiled tables for calculating their places in the heavens. Guided by the genius of Hipparchus, Claudius Ptolemy, the Egyptian, a century and a half after Christ, though he placed the earth in the centre of the system, improved the theories of the sun, moon, and planets—

* This sketch is taken *verbatim* from the "Memoirs of the life, writings, and discoveries of Sir Isaac Newton, by Sir David Brewster, K.T." Hamilton Adams and Co., 1855. Vol. I., p. 252, *et seq.*

discovered the principal inequality in the moon's orbit—gave a theory of astronomical refractions more complete than that of any astronomer before Cassini, and bequeathed to posterity the valuable legacy of his *Almagest*, and his five books of *Optics*.

"After centuries of darkness, Bagdad, the capital of Arabia, became the focus of science. The ancient astronomy was preserved and cultivated, but though new and more accurate observations were made, the science lay prostrate amid the cumbersome appendages of cycles and epicycles.

"In the thirteenth century, the noble-minded Alphonso X., sovereign of Castile, published, at a great expense, new astronomical tables, compiled by the most distinguished professors in the Moorish universities; and, as if he had obtained a glimpse of a simpler arrangement, he denounced the rude mechanism of epicycles in language less reverent in its expression than in its truth. 'Were the heavens thus constituted,' he said, 'I could have given the Deity good advice had he consulted me at their creation.' Notwithstanding these obstructions, astronomy advanced, though with faltering steps, unable to escape from the trammels of authority, or to free itself from the vulgar prejudices which a false interpretation of scripture had excited against a belief in the motion of the earth.

"In this almost stationary condition, however, the science of the heavens was not suffered to remain. Nicolas Copernicus arose—a philosopher fitted to develop the true system of the universe, and a priest willing to give absolution for the sin of placing the great luminary in the centre of the system. This distinguished individual, a native of Thorn, in Prussia, though of Bohemian origin, was born on the 19th January, 1472. He at first followed his father's profession of medicine, but finding it uncongenial with his love of astronomy, he went to Bologna to study that science under Dominic Mario. In this situation he was less the disciple than the assistant and friend of Mario, and we find that he had made observations on the moon at that

place in 1497. About the year 1500, he went to Rome, where he taught mathematics publicly to a large assemblage of youth and of persons of distinction; and in the month of November of the same year, he observed an eclipse of the moon, and made other observations, which formed the basis of his future researches. While thus occupied, the death of one of the canons of the Cathedral Church of Ermeland at Frauenburg, enabled his uncle, who was bishop of the see, to nominate him to the vacant office. In this secluded spot, in the residence of the canons, situated on the brow of a hill, Copernicus carried on his astronomical observations. During his sojourn at Rome, the Bishop of Fossombrossa, who presided over the council for reforming the calendar, had requested his assistance in that important undertaking. Upon this congenial task he entered with youthful zeal. He charged himself with the duty of determining the length of the year, and the other elements which were required by the council; but the observations became irksome, and interfered with the completion of those interesting views which had already dawned upon his mind.

“Convinced that the simplicity and harmony which appeared in the other works of creation should characterize the arrangements of the planetary system, he could not regard the hypothesis of Ptolemy as a representation of nature. This opinion was strengthened by actual observation. The variable appearance of the superior planets, of Mars, for example, in opposition and conjunction—in the one case shining with the effulgence of Jupiter, and in the other with the light of a secondary star—was irreconcilable with the dogma that the planet moved round the earth. That it moved round the sun was the conclusion to which he was then led; and the grand idea of the bright orb of day being the centre of the planetary system burst upon his mind, though perhaps with all the dimness of a dream—the first phase of every great discovery. In the opinion of the Egyptian sages—in those of Pythagoras, Philolaus, Aristarchus, and Nicatas of Syracuse—he recognised his first conviction that

the earth was not the centre of the universe ; and in the works of Martianus Capella he found it to be the opinion of the Egyptians that Mercury and Venus revolved about the Sun during his annual motion round the earth. Thus confirmed in his views, the difficulties that had previously surrounded them were gradually dispelled, and after thirty-six years of intense study, in which the labours of the observer and the calculations of the mathematician were combined with the capacity of the philosopher, he was permitted to develop the true system of the heavens.

“In his eye the Sun stood immoveable in the centre of the universe, while the earth revolved annually round him between the orbits of Venus and Mars, producing by its rotation upon its axis in twenty-four hours all the diurnal phenomena of the celestial sphere. Mercury and Venus revolving round the Sun within the Earth’s orbit, and all the rest of the planets without it, while the Moon revolved monthly round the Earth during its annual motion. In the system thus constituted, all the phenomena of the celestial motions received an immediate explanation. The alternation of day and night, the vicissitudes of the seasons, the varying brightness of the planets, their stations and retro-gradations, and even the procession of the equinoxes, became the necessary result of the Copernican system.

“The circulation of these great truths, and the principles on which they rest, became the leading object of Copernicus’ life. The canon of Ermeland, however, saw the difficulties of his position, and exhibited the most consummate prudence in surmounting them. Aware of the prejudice, and even of the hostility with which his discoveries would be received, he resolved neither to startle the one nor provoke the other. He committed his opinions to the slow current of personal communication. The points of opposition which they presented to received doctrines were thus gradually worn down, and they insinuated themselves into ecclesiastical minds by the very reluctance of their author to bring them into notice. In 1536 Cardinal Nico-

las Schonberg, bishop of Capua, and Tidemann Gyse, bishop of Culm, exerted all their influence to induce Copernicus to lay his system before the world ; but their entreaties were in vain, and it was not published till 1539, when an accidental circumstance contributed, with other causes, to alter his resolution. Having heard of the system of Copernicus, George Rheticus, professor of mathematics at Wirtemberg, resigned his chair, and repaired to Frauenburg to make himself master of his discoveries. After studying and adopting them, this zealous disciple prevailed upon Copernicus to permit their publication ; and they seemed to have arranged a plan for giving them to the world without alarming the vigilance of the Church. Under the disguise of a student of mathematics, Rheticus published in 1540 an account of the manuscript volume of Copernicus. The pamphlet was received without any expression of censure, and its author was thus encouraged to reprint it at Basle with his own name. The success of these publications, and the flattering manner in which the new astronomy was received, combined with the solicitations and even reproaches of his friends, overcame the scruples of Copernicus, and induced him to place his manuscripts in the hands of Rheticus. It was accordingly printed at the expense of Cardinal Schonberg, and was published at Nuremberg in 1543, under the title of—‘On the Revolutions of the Celestial Bodies.’ (*Nicolai Copernici—Torimsis De Revolutionibus orbium coelestium*). Its illustrious author, however, did not live to peruse it. A complete copy was handed to him on his dying day, and he saw and touched it a few hours before he expired. In an introductory address—‘On the hypotheses of his work,’ Copernicus propitiates such of his readers as may be alarmed at their novelty by assuring them that it is not necessary that astronomical hypotheses be either true or probable, and that they accomplish their object if they reconcile the calculus with observation. With the same view he inscribed his preface to the Holy Pontiff himself, and boldly alludes to the hostility to which his opinions will ex-

pose him—"I have preferred," says he, "dedicating my lucubrations to your holiness, rather than to any other person, because in the very remote corner of the world in which I live, you are so distinguished by your rank, and your love of learning and mathematics, that you will easily repress the virulence of slander, notwithstanding the proverb that there is no remedy against the wound of the sycophant." And "should there be any babblers who, ignorant of all mathematics, presume to judge of these things, on account of some passage of scripture wrested to their own purpose, and dare to blame and cavil at my work, I will not scruple to hold their judgment in contempt Mathematics are written for mathematicians, and I am much mistaken if such men will not regard my labours as conducive to the prosperity of the ecclesiastical republic over which your holiness presides." Thus recommended to the sovereign authority of the Church, and vindicated against the charge of being hostile to scripture, the Copernican system met with no ecclesiastical opposition, and gradually made its way in spite of the ignorance and prejudices of the age."

It must not, however, be forgotten that when the truth was spoken beyond the sphere of intelligence, it evoked scorn; that Copernicus was satirized on the stage of Elbing; and, above all, that what he did was done with miserable wooden instruments on which the lines were often only marked with ink, and that that was a hundred years before the invention of the telescope.

LUTHER, MARTIN—1483-1546.*

Luther was born at Eisleben, in Germany. His father, who was a miner, removed thence to Mansfield in 1484. Luther made rapid progress in Latin and his other studies when at school, and, in 1501, entered the university at Erfurt, where he obtained the degree of master, and lectured on the physics and ethics of Aristotle. It was at this time that he discovered in the library of the university a Latin Bible. His father intended him for the law. Luther's delight with the Bible, of which the clergy of his time knew nothing but the gospels and epistles, and the excerpts in common use, induced him to turn his attention to the study of divinity, which, added to his natural serious tendency, and the sudden death of his friend, Alexis, in his presence when they were travelling together, resolved him, in opposition to the wish of his father, to adopt the monastic life. He entered the monastery of the Augustines at Erfurt in 1505. Though pure and innocent, the notion that he was wicked so tortured him as to produce a serious illness. It was during that illness that one of the elder brothers, who had become attached to Luther, told him that faith in Jesus was all that was necessary to secure the forgiveness of his sins. This doctrine came to Luther as a revelation. He had been taught to believe in good works and indulgences. Fortunately for him, Staupitz, the provincial of the order, was a man not merely of heart, but of intelligence. He soon discovered the genius and acquirements of Luther, and at the same time delivered him from the menial duties of the cloister, and encouraged him to prosecute his studies. In 1507 he was made a priest, and in 1508 was appointed professor of philosophy at Wittenberg, where he asserted the right of reason, repudiated the scholastic philosophy, and became a popular teacher. In

* This sketch is derived from "Hazlitt's translation of Michelet's Life of Luther." David Bogue, Fleet Street, 1846.

1510 he was sent, on business of his order, to the court of Leo X. at Rome; on reaching the city, he proceeded to the convent of his order, near the Porto del Popolo. He says—"On arriving, I fell on my knees, raised my hands to Heaven and exclaimed: Hail, holy Rome! made holy by the holy martyrs, and by the blood which has here been spilt." The war against the French he soon found to be the sole subject that then engrossed the Pope and Rome. He was shocked at the levity of the Italian clergy. He tells us that he more than once heard a priest, when consecrating the host, say—"Bread thou art, and bread thou wilt remain; wine thou art, and wine thou wilt remain." Luther quitted Rome at the end of a fortnight. He afterwards said—"I would not for a hundred thousand florins have missed seeing Rome; I should have always felt an uneasy doubt whether I was not, after all, doing injustice to the Pope. As it is, I am quite satisfied on the point."

Michel Angelo had designed for Julius II. the Cathedral of Saint Peter. Leo X. needed funds to carry on the mighty work. To raise money, he sold to Francis I. what did not belong to him, the rights of the Church of France; he created thirty-one cardinals at once; he entrusted the sale of indulgences in Germany to the Dominicans. Tetzel, a man of notoriously immoral character, hawked the commodity in the churches, the public streets, in taverns, and in ale-houses; handing over as little as possible to his employer, he pocketed the balance. When buyers flagged, Tetzel invented crimes, infamous atrocities, things unheard of and unthought of; and when his audience stood aghast at each horrible suggestion, he used calmly to repeat the burden of his song—"Well, all this is expiated the moment your money chinks in the Pope's chest." These things were done in the name of the Archbishop of Mayence, who had the superintendence of the sale of indulgences in Germany. Luther became indignant, the matter went to his soul; if he spoke he ran great risks; if he remained silent he believed he should incur damnation. On the festival of All

Hallows' Eve, he, in the university of Wittenberg, cautioned his hearers against the snares that were laid for them, declared that it was a scheme altogether opposed to religion, and only intended as a source of emolument. He wrote to the Bishop of Brandenburg, and to the Archbishop of Magdeberg, praying them to silence Tetzel. He did not then know that the archbishop had bargained with the Pope to retain, for his own uses, one half of Tetzel's receipts. As he received no answer from the archbishop, Luther, on the festival of All Saints in November 1517, read in the great church of Wittenberg a series of propositions against those indulgences, in which he set forth their utter worthlessness; but at the same time declared his willingness to bow to the Word of God and the decisions of the church. These propositions were affixed to the outer pillars of the gate of the church of All Saints on the 31st October 1517. The following is one of them—"Why does not the Pope, in his very holy character, clear out purgatory at once, wherein so many souls are suffering? This would be bestowing his power far more worthily, than for him to deliver souls for money; money so gained brings calamity with it, and for what purpose, moreover? For a building."

Tetzel published one hundred and six counter-resolutions in reply, and, subsequently, a second series, in which he denounced Luther and his friends as heretics and heresiarchs. He caused Luther's publications to be burnt publicly in Frankfort. The Wittenbergers retaliated. Tetzel's productions were burnt in the great square amid the cheers and derision of a large proportion of the inhabitants. That was done without the knowledge of either Luther, the Elector, or the magistrates.

John Eck, vice-chancellor of the university of Ingoldstadt, and Silvestro Prierio, master of the apostolical chamber at Rome, and licenser of books, attacked Luther. Concerning the latter, Luther said—"I thought it unnecessary to reply further than by simply declaring my convictions that the said Prierio's book, being a compound of blasphemies and lies, must certainly

have been the work of the devil ; and that if the Pope and cardinals sanctioned such writing, which I did not then believe, although I now know it well, Rome must be the seat of Anti-Christ, the centre of abomination, and the synagogue of Satan." Thus passed the year 1517, so far as Luther and his antagonists were concerned. While Leo looked on with more or less indifference, believing that the storm would blow over without doing much damage to anyone, the masses of Germany were eagerly devouring each word that fell from Luther, who, in short, had but given manly utterance to sentiments long entertained, though but faintly whispered. Luther's propositions were printed in thousands, he himself became alarmed at his success, nor did he hesitate to admit the fact. Indeed, it is more than probable that, at that time, for the sake of peace, he would willingly have retired from the contest, had he not been accused of being the enemy of all religion. That suggestion resolved him to fight to the bitter end. He says—"I found that everywhere they (his enemies) were assiduously inculcating among the people that I was not only an obstinate heretic, but the enemy of all religion whatsoever."

Writing to Staupitz about this time, he said in one part of a long letter—"To the threatenings with which I am assailed I have little to say, except with Reuchlin, that he who is poor has nothing to fear, because he has nothing to lose. He who is deprived of fame and rewards, loses what I neither possess nor desire."

Matters reached a pass which Rome could not afford to disregard. Toward the end of August, 1518, Luther was ordered to appear at Rome within sixty days.

It is a fact that must not be lost sight of by those endeavouring to read the spirit of the times in question, that the emperor, Maximilian, had in vain called upon the powers at Rome not to precipitate matters, he undertaking to do all that the Pope might order to be done with respect to Luther. The emperor was distrusted. It had reached the ears of Rome that he had

said to Pfeffinger, one of the councillors of the Elector of Saxony—"That which your monk Luther is doing, is not to be despised. The game with the priests is beginning; take care of him, it may happen that we shall have need of him." Furthermore, he was known to have said—"This pope has acted towards me like a rogue. I can fairly say that I have never found in any pope I have met with, sincerity or good faith, but, please God, I hope this will be the last of them."

Luther relied on the elector, who had declared that he recognised no other rule of faith than the words of the scriptures themselves. He did not go to Rome. His prince, without communicating with him on the subject, took measures for his safety; he had managed that Luther should be examined by a legate in Germany, in the free town of Augsburg, where he himself then was.

Thomas de Vio, Cardinal of Caieta, appointed judge on the occasion, no bigot, regarded the matter from the purely secular point of view. The political and fiscal interests of Rome were his sole concern. Luther went to Augsburg. He reached it on the 9th October, 1518, under the protection of a strong convoy, and the safe conduct of Frederick, prince elector of Saxony. On the third day after his arrival, the Bishop of Trent produced the Emperor's safe conduct to the Cardinal. Luther describes an interview he had with the Cardinal thus:—"When I came before him again, and would absolutely revoke nothing at all, he said to me, 'What! do you think the Pope cares much for Germany? His little finger is more powerful than all Germany. Or, do you think the princes will raise arms and armies to defend you? Oh, no! Where, then, will you remain in safety?' I replied, 'Under heaven.'" When Luther appeared before the Cardinal officially, the Cardinal submitted to him three conditions sanctioned by the Pope, viz. :—(1) That he should alter his opinions and retract his erroneous propositions; (2) That he should engage to abstain from propagating such doctrines in future; and (3) That he should not circulate

any opinions opposed to the authority of the Church. Luther requested to be informed wherein he had been in error, but the Cardinal declined all controversy. Luther says :—" All he did was to repeat over and over and over again, 'Retract ; acknowledge your error, whether you believe it an error or not. The Pope commands you to do this!'" At length the Cardinal changed his tactics and lectured Luther, during which he referred to the "Extravagant" of Clement VI., of which he erroneously assumed Luther to be ignorant, inasmuch as it was not inserted in the collections. Luther says :—"I then in my turn took to raising my voice somewhat. 'Come,' said I, 'if you can show me that your decretal of Clement VI. says expressly that the merits of Christ are the treasure of the indulgences, I retract.' Lord, what a laugh there was at this ! The legate snatched the book, and ran over the pages in breathless haste, till he came to the place where it is written that 'Christ by his passion acquired the treasures.' I stopped him at that word 'acquired.'" The conference, which lasted several days, proved abortive. Luther remained firm, and when he quitted Augsburg, left behind him "*An Appeal to the Pope better informed.*" Luther spent the autumn of 1518 in constant alarm. He even contemplated quitting Germany. He knew that the Pope was endeavouring to effect by stratagem what he had failed otherwise to accomplish. The "Golden Rose," a distinction reserved almost exclusively for kings, was offered by the Pope to the Elector. The Elector wrote to the Pope with all due courtesy, but, at the same time, declared his wish to have the matter examined by judges not liable to suspicion.

In January, 1519, the Emperor died. Frederick acted as regent. Frederick's favourite theologian was Luther. Luther's spirit revived. He wrote to the Pope a respectful letter, in which is this passage—"Retract, you say. Were the retraction demanded from me possible, it should be made. Thanks to my adversaries, to their fierce resistance, to their rabid hostility, my writings have spread abroad far more widely than I had an-

ticipated ; my doctrines have penetrated too deeply into men's hearts for them now to be effaced. Germany* is at this time flourishing in men of learning, of judgment, of genius ; if I desire to do honour to the Roman Church, it will be by revoking nothing. A retraction would only injure her in the estimation of the people, and expose her to ill representations. They whom I oppose, most holy father, are the men who have really injured and disgraced the holy Roman Church."

Charles von Miltitz, the Pope's private chancellor, modified his tone towards Luther, and spoke him fair ; he tried to persuade him to go and explain his views to the Archbishop of Traves. Luther saw through him ; and in his reply to one of Miltitz's letters, said :—" If, as you say, you are compelled by my refusal to come yourself, God give you a happy voyage. As to me, I have no time and no money to go wandering about in that manner. Farewell, worthy sir." On the arrival of Miltitz in Germany, Luther said that he would hold his peace, provided his opponents did the same. They released him from his engagement. Eck solemnly challenged Luther to come and dispute with him at Leipzig, and he accordingly proceeded with Carlstadt to the place of meeting. The 20th of June was fixed for the contest. The citadel was prepared as the battlefield. Certain doctors of Erfurt and Paris were the chosen umpires. The authorities were, not unnaturally, on the side of authority. The faculties of Paris, Louvain, and Cologne condemned Luther's propositions. Luther was not content with having defended himself at Leipzig. At Wittenberg he assumed the offensive. Meanwhile, having been judged, or rather, pre-judged and sentenced at Rome, he wrote his book "On the captivity of Babylon." In it he maintained that the Church was captive ; that

* John Frobin, a celebrated printer of Bâle, wrote Luther on the 14th February, 1519, telling him that his books were read and approved of even at Paris, nay, even in the Sorbonne ; and that he had no more than one copy left of all those he had printed at Bâle, which were spread through Italy, Spain, and elsewhere, and everywhere admired by the learned.

Jesus Christ, constantly profaned in the idolatry of the mass, set aside in the dogma of transubstantiation, was the Pope's prisoner. At this period Luther had no ill-will to the Pope personally, for in a letter addressed by him to the Pope he says:—"I protest—and my memory is a faithful one—I have never spoken of you but with honour and respect." His antipathy was to the popery of his day, for in the same letter he says:—"Rome is a sink of corruption and iniquity; for it is clearer than light itself that the Roman Church, once of all churches the most chaste and pure, has become a cavern foul with robbers, the most obscene of brothels; the very throne of sin, of death, and hell; and that its wickedness could go no further, even were Antichrist reigning there in person. Ay, Leo, you are as a lamb amidst the wolves, as Daniel amidst the lions, as Ezekiel amidst the scorpions!" Was Luther wrong? We shall see hereafter what Ignatius Loyola and the Pope said and did.

When the Bull of condemnation arrived in Germany, it found a whole nation in a state of ebullition. At Erfurt, the students took it from the booksellers' shops, tore it in pieces, and threw it into the water, saying, "It is a bull; let us see if it can swim." Luther at once published a pamphlet—"Against the execrable Bull of Antichrist." On the 10th December, 1520, he publicly burnt the Pope's anathema at the gates of the town, amid the exulting shouts of the people. Thus did Luther cross the Rubicon; boldly indeed, but not without natural and honourable misgivings, for he says:—"What have the tribulations of my heart not been? How many times have I not asked myself with bitterness the same question which the Papists put to me—'Art thou alone wise? Can everybody else be so mistaken? Can so many ages have been mistaken?'"

The nobles and the people, the castles and the free towns, rivalled each other in zeal and enthusiasm for Luther. Printers and booksellers did their utmost to give publicity to the new ideas. A host of ex-monks, who had returned to the world,

gained a livelihood by vending throughout Germany the numerous works of Luther. His pen never ran dry.

The Emperor summoned Luther to appear at Worms before the imperial diet. The two parties were, at last, to meet face to face.

The Papists were not altogether sure of the Emperor. In the diet at Worms, Luther was not without partizans in high places. During one of the sittings somebody openly produced a paper, setting forth the fact that four hundred nobles had sworn to defend Luther. Having read the paper, he cried out, "*Bruntschuh! Bruntschuh!*"—the rallying word of the insurgent peasantry.

That the portraits of Luther, painted by friends and foes, are not identical, is not to be wondered at. We give one by the friendly Mosellanus, drawn some time before the diet—"Martin is of the middle height; cares and studies have made him so thin that one could count all the bones in his body; yet he is in all the force and verdure of his age. His voice is clear and piercing. Powerful in his doctrine, wonderful for his knowledge of the scriptures, every one, almost, of the verses of which he could recite, one after another. He learned Greek and Hebrew for the purpose of comparing and weighing the various translations of the Word. He is never at a loss, and has at his disposition a world of thoughts and words. In his conversation he is agreeable and easy, and there is nothing hard or austere in his air. He even permits himself to enjoy the pleasures of life. In society he is gay, jocund, and unembarrassed; and preserves a perfect serenity of countenance, despite the atrocious menaces of his adversaries. It is difficult to believe that this man could undertake such great things without Divine protection. The only general reproach made against him is that he is too caustic in his replies, hesitating at no bitterness of expression when he is angry."

If the hostile portraits are accurate, it is not easy to understand how a man, such as is painted by his detractors, could

have accomplished what he did ; his having done what he did, does not reflect the greatest possible credit on those who were unquestionably worsted by so contemptible an adversary.

To add to, or to take from, Luther's own narrative of what took place at, and in connection with the famous diet of Worms, would be unpardonable. It is as follows :—“The herald summoned me on the Tuesday in Holy Week, and brought me safe conducts from the Emperor and from several princes. On the very next day (Wednesday), these safe conducts were in effect violated at Worms, where they condemned and burned my writings. Intelligence of this reached me when I was at Worms. The condemnation, in fact, was already published in every town, so that the herald himself asked me whether I still intended to repair to Worms. Though in truth I was physically fearful and trembling, I replied to him, ‘I will repair thither, though I should find there as many devils as there are tiles on the house-tops.’ When I arrived at Oppenheim, near Worms, Master Bucer came to see me, and tried to dissuade me from entering the city. He told me that Glapion, the Emperor's confessor, had been to him and had entreated him to warn me not to go to Worms, for that if I did I should be burned. I should do well, he added, to stop in the neighbourhood at Franz Von Sickingen's, who would be glad to entertain me.

“The wretches did this for the purpose of preventing me from making my appearance within the time prescribed. They knew that if I delayed only three more days my safe conduct would have been no longer available, and then they would have shut the gates in my face, and, without hearing what I had to say, have arbitrarily condemned me. I went on then in the purity of my heart, and on coming within sight of the city, at once sent forward word to Spalatin that I had arrived, and desired to know where I was to lodge. All were astonished at hearing of my near approach, for it had been generally imagined that, a victim to the trick sought to be practised on me, my terrors would have kept me away. Two nobles, the seign-

eur Von Hirschfeldt and John Schott, came to me by order of the Elector, and took me to the house in which they were staying. No prince came at the time to see me, but several counts and other nobles did, who gazed at me fixedly. These were they who had presented to his Majesty the four hundred articles against ecclesiastical abuses, praying that they might be reformed, and intimating that they would take the remedy into their own hands if need were. They had all been freed by my gospel!

"The Pope had written to the Emperor, desiring him not to observe the safe conduct. The Bishops urged his Majesty to comply with the Pope's request, but the Prince and the States would not listen to it, for such conduct would have excited a great disturbance. All this brought me still more prominently into general notice, and my enemies might well have been more afraid of me than I was of them. The landgrave of Hesse, still a young man at that time, desired to have a conference with me. He came to my lodgings, and after a long interview, said on going away, 'Dear doctor, if you be in the right, as I think you are, God will aid you.'

"On my arrival I had written to Glapion, the Emperor's confessor, entreating him to come and see me at his first leisure; but he refused, saying it would be useless for him to do so. I was then cited, and appeared before the whole council of the imperial diet in the Town Hall, where the Emperor, the Electors, and the princes were assembled. Dr. Eck, official of the Archbishop of Treves, opened the business by saying to me, first in Latin and then in German:—'Martin Luther, his sacred and invincible Majesty, with the advice of the States of the empire, has summoned you hither, that you may reply to the two questions I am now about to put to you—Do you acknowledge yourself the author of the writings published in your name, and which are here before me? and, will you consent to retract certain of the doctrines which are therein inculcated?' 'I think the books are mine,' I replied. Immediately, however, Dr.

Jerome Schurff said, 'Let the titles of the works be read.' When they had read the titles, I said, 'Yes; the books are mine.'

"Then he (Dr. Eck) asked me:—'Will you retract the doctrines contained therein?' I replied, 'Gracious Emperor, as to the question whether I will retract the opinions I have given forth: a question of faith, in which are directly interested my own eternal salvation, and the free enunciation of the Divine Word—that Word which knows no master either on earth or in heaven, and which we are all bound to adore, be we as great as we may—it would be rash and dangerous for me to reply to such a question until I had meditated thereupon in silence and retreat, lest I should incur the anger of our Lord and Saviour Jesus Christ, who has said, "*He who shall deny me before men, I will deny before my Father which is in heaven.*" I therefore entreat your sacred Majesty to grant me the time necessary to enable me to reply with full knowledge of the point at issue, and without fear of blaspheming the Word of God, or endangering the salvation of my own soul.' They gave me till the next day at the same hour.

"The following morning I was sent for by the bishops, and others who were directed to confer with me, and endeavour to induce me to retract. I said to them, 'The Word of God is not my word, I therefore cannot abandon it; but in all things short of that I am ready to be docile and obedient.' The Margrave Joachim then interrupted, and said, 'Sir doctor, as I understand it, your desire is to listen to counsel and to instruction on all points that do not trench upon the Word?' 'Yes,' I replied, 'that is my desire.'

"Then they told me that I ought to place myself entirely in the hands of his Majesty, but I said I could not consent to that. They asked me whether they were not themselves Christians, and entitled to have a voice in deciding the question between us as well as I? Whereunto I answered that I was ready to accept their opinions in all points which did not offend

against the Word, but that from the Word I would not depart, repeating that, as it was not my own, I could not abandon it. They insisted that I ought to rely upon them, and have full confidence that they would decide rightly. 'I am not,' rejoined I, 'by any means disposed to place my trust in men who have already condemned me without a hearing, although under safe conduct. But to show you my zeal and sincerity, I tell you what I will do—act with me as you please: I consent to renounce my safe conduct, and to place it unreservedly in your hands.' At this my lord Frederic de Feilitsch observed, 'Truly this is saying quite enough, or, indeed, too much.'

"By-and-by they said, 'Will you at all events abandon some of the articles?' I replied, 'In the name of God I will not defend for a moment any articles that are opposed to the Scripture.' Hereupon two bishops slipped out, and went and told the Emperor I was retracting. At this a message came to me, asking whether I really consented to place myself in the hands of the Emperor and of the diet? I answered that I had consented to nothing of the sort, and should never consent to it. So I went on resisting alone the attempts of them all, for Dr. Schurff and my other friends had become angry with me for my obstinacy, as they called it. Some of my disputants said to me that if I would come over to them they would in return give up to me and abandon the articles which had been condemned at the Council of Constance. To all of which I simply replied, 'Here is my body, here my life; do with them as you will.'

"Then Cochläus came up to me and said, 'Martin, if thou wilt renounce the safe conduct, I will dispute with thee.' I, in my simplicity and good faith, would have consented to this, but Dr. Jerome Schurff replied, with an ironical laugh, 'Ay, truly, that were a good idea—that were a fair bargain. I' faith, you must needs think the doctor a fool.' So I refused to give up the safe conduct. Several worthy friends of mine who were present had already, at the bare mention of the proposition, ad-

vanced towards me, as if to protect me, exclaiming to Cochläus, 'What, you would carry him off a prisoner, then! That shall not be.'

"Meantime, there came a doctor of the retinue of the Margrave of Baden, who essayed to move me by fine flourishes. 'I ought,' he said, 'to do a very great deal, to grant a very great deal, for the love of charity, that peace and union might continue, and no tumult arise. All,' he urged, 'were called upon to obey his Imperial Majesty, as being the supreme authority. We ought all to avoid creating unseemly disturbances, and therefore,' he concluded, 'I ought to retract.' 'I will,' replied I, 'with all my heart, in the name of charity do all things, and obey in all things which are not opposed to the faith and honour of Christ.'

"Then the Chancellor of Treves said to me, 'Martin, thou art disobedient to his Imperial Majesty; wherefore depart hence, under the safe conduct which has been given thee.' I answered, 'It has been as it pleased the Lord it should be. And you,' I added, 'do all of you on your part consider well the position in which you are.' And so I departed in singleness of heart, without remarking or comprehending their machinations.

"Soon afterwards they put in force their cruel edict—that ban which gave all men an opportunity of taking vengeance with impunity on their personal enemies, under the pretext of their being Lutheran heretics; and yet, in the end, the tyrants found themselves under the necessity of recalling what they had done.

"And this is what happened to me at Worms, where I had no other aid than the Holy Spirit."

The triumph of Luther was complete. The Roman Church had received a blow which made it tremble from head to foot. The shock did not annihilate it, but left it for ever a mangled, paralyzed wreck of its former self. Princes and peasants had been taught to read and think for themselves, and to dare to say what they thought. Had Luther's labours ended here, his

name must for ever have stood conspicuously forward in the ranks of those noble beings who have lived, toiled, and died in the service of humanity. Luther was destined, however, not merely to destroy, but to build and to prove to the world that firmness and gentleness are compatible elements of the same nature; that devout piety and a thorough appreciation of the pleasures of life are not inconsistent; and that nothing is too great or too little for the truly noble.

On the 26th April, after a collation given to him by his friends, Luther started for Wittenberg, and at each stage of his journey till he reached the forest near the fortress of Altenstein, was received with open arms. When close to the fortress, a troop of horsemen stopped his carriage, ordered him to alight, divested him of his clerical robe, replaced it by a military garb, and at the same time stuck on him a false beard, and in that condition hurried him off to the Castle of Wartberg, where he was detained a prisoner. The world, ignorant of the fact, believed him to have perished. The Pope and Emperor were accused of his death.

Luther, subsequently referring to the incident, wrote to a friend, "I hardly knew myself. However, here I am, living in *libertate Christianâ*, free from the chains of the tyrants." It need hardly be said that his captors were not his enemies. Luther, however, was ignorant of the plot, and, at the time, necessarily ignorant as to its author. The Elector of Saxony is said to have been alarmed at the imperial sentence, and being afraid openly to befriend Luther, he resorted to this stratagem. It is not impossible, however, that the imperial will and that of the Elector were secretly in accord.* Those were strange times. Be that as it may, the clerical party are said to have been furious at the escape of the audacious innovator. . Meanwhile Luther,

* We are told that on hearing of Luther's departure from Wittenberg, the Elector dispatched Schurff to meet him and persuade him to return, or at least to furnish him with an explanation of his conduct, which he might show to the Emperor.

in his dungeon, resumed his flute, sang his German psalms, continued his translation of the Bible, and from time to time thundered forth against the Pope and the devil.

Security, plenty, and leisure devoted to congenial toil, though all very well in their way, soon became insupportable to Luther. After ten months' incarceration he returned to the world, and for eight successive days in March, 1522, preached against the violence of the demagogue theologians, the image breakers, the anabaptists, and all others who confounded license with freedom.

To understand the true position of Luther at this period, due weight must be given to the fact that the political world was greatly troubled. A general insurrection was apprehended. The populace in every direction were murmuring in a tone not to be mistaken. The gentry and the lower class of the nobility, still more discontented and impatient than the people, were taking the initiation in the social changes called for. The wealthy overgrown ecclesiastical principalities lay spread out before the eyes of all as a fair prey, in the pillage of which civil war might best be commenced. The Catholics themselves—that is to say, many of them—called, though in a regular and legal manner, for the reformation of the abuses in the Church against which Luther had taken his stand.

The prohibition by Duke George and certain ecclesiastical dignitaries of the sale of Luther's translations of the Bible, and his reply to the book of Henry VIII. in defence of the Church, written by Henry's chaplain, Edward Lee, stirred up all the bellicose passions of Luther, and drew forth his most bitter invective. Michelet says, "Never before had a private man addressed to a sovereign prince words so contemptuous or so daring." The following are extracts from Luther's reply to Henry:—"Quite recently the Lord Henry (not by the grace of God), King of England, has written in Latin against my treatise. There are some who believe that this pamphlet did not emanate from the king's own pen; but whether Henry

wrote it or Hal, or the devil in hell, is nothing to the point. He who lies is a liar, and I fear not, be he who he may. . . . Ah! ah! my worthy Henry! you've reckoned without your host in this matter; you have had your say and I'll have mine; you shall hear truths that won't amuse you at all; I'll make you smart for your tricks! . . . Is the King of England a wise man, because I take him for a fool? Answer me that. . . . King Henry justifies the proverb: *Kings and princes are fools*. . . . God willing, when I shall be more at leisure, I will reply at greater length to this royal driveller of lies and poison. . . . 'Tis precisely what might have been expected in a conscience-haunted tyrant. Hal and the Pope have exactly the same legitimacy: the Pope stole his tiara as the King did his crown; and therefore it is they are as thick together as two mules in harness. . . . Living, I shall be the enemy of Popery; dead, I should be doubly its enemy. Pigs of Thomists, do what you can! . . . They have challenged me to war; well, they shall have war. They have contemptuously rejected the peace I offered them; they shall not have peace. God will see which of us will soonest cry quarter, the Pope or I."

In the German treatise he published about the same time on the secular power, he says:—"The world now is not the world as it used to be, wherein at your good pleasure you chased men as though they were wild beasts. . . . I exhort all good Christians to pray with us in behalf of these blind princes whom, doubtless, God sent us in his anger, and not to follow them against the Turks. The Turk is tenfold more able, ay, and more religious than our princes. . . . By-and-by we shall have some princes putting themselves forward as defenders of *Jesus Christ*, and others as *defenders of the Holy Ghost*! Should this be so, the Trinity, truly, will be fitly guarded!"

In 1532 Luther began to purify the liturgy; in 1524 he laid aside his cowl, and gave the signal for the abolition of the monasteries; in 1525—then in his forty-second year—he married Catherine von Bora, a nun, who had left her convent. He op-

posed with all the energy of his nature the violence of the peasantry, and the lawlessness and licentiousness of the anabaptists. Between 1526 and 1529 he prepared a new church service, under the patronage of the Elector, and with the aid of Melancthon and other members of the Saxon Church. His intolerance of the Swiss was little inferior to that of the Papacy. In 1530 his place at the diet of Augsburg was occupied by Melancthon. The sentence pronounced against Luther, whereby he was declared a heretic, being still suspended over him, he in 1537 wrote the Smalcaldic articles. In 1545 he refused any participation of his party in the Council of Trent. On the 18th February, 1546, he died. Luther's complete works appeared in 1826 at Erlangen, in 60 volumes.

RABELAIS, FRANCOIS—1483-1553.*

He who would estimate men aright, must contrast them with others of their own time. Those who are inclined to judge Luther harshly, and accuse him of coarseness and bitterness of language, should make a careful study of Rabelais—his *Gargantua* and his *Pantagruel*. Born in the same year as Luther, at Chinon, in Touraine, like Luther, Rabelais became a monk, and in time was equally disgusted with the gross ignorance, the superstition, the irreverence, the immorality of the times, and, above all, with the extravagant pretensions of Rome. Like Luther, though in a different manner, he endeavoured to reform his age. He called fiction and satire to his aid. We are told that he entered the Franciscan order at Fontenay-le Comte, and that the absence there of all true learning disgusting him, induced him to give vent to his satirical humour, which, added, it is said, to some youthful indiscretion, drew upon him the hatred of the monks; that, with the permission

* The matter of this sketch is derived from "The Works of Rabelais," published by Chatto and Windus, Piccadilly; and Bohn's edition of "The Works of Francois Rabelais," 1863.

of Clement VII., he entered the Benedictine order about the year 1523; that he shortly after went to Montpellier as a secular priest; that he afterwards studied medicine, obtained the degree of doctor, and taught and practised the medical profession; that like Luther, notwithstanding his ridicule of the clergy and his bitter attacks on the Church, he had believers in high places,—the Cardinal du Bellay being among his warm and constant friends. Nothing is more unjust or absurd than to suppose, as some profess to believe, that even in those days there were not many in the Church as much shocked at its condition as those who stand out conspicuously as the exponents of its abuses. The fact that Luther, Rabelais, and many of those who publicly and privately aided them, were members of the Church, proves that the desire for reform came from within, though in some instances it was advanced by those who left the Church. Rabelais was a parish priest at Meudon at the date of his death, 1553.

Boileau calls him *la raison en masque*, and Rousseau *le gentil maitre Francois*, though Voltaire, strange to say, and possibly without reason, censures the Gargantua and the Pantagruel. The spirit and language of the period, and not the real taste of Rabelais, must bear the burden of blame for language, for the use of which in these days no adequate excuse could be offered. The grosser portions, which are here omitted, are, however, not the less instructive to those who desire to become familiar with the actual life of the period. When reading Rabelais, it is well to bear in mind that he was, as we are told and have no reason to doubt, a conscientious teacher of his people; that it was his delight to instruct the children of his parish in sacred music; that his house was the resort of the learned; that his medical skill was ever employed in the service of his parish; and that his purse was always open to the needy.

The following are a few extracts from his works:—

“‘By the faith of a Christian,’ said Eudemon, ‘I am highly transported when I consider what an honest fellow this monk

is, for he makes us all merry. How is it, then, that they exclude the monks from all good companies; calling them feast troublers, as the bees drive away the drones from their hives?' 'Hereunto,' answered Gargantua, 'there is nothing so true as that the frock and cowl draw to them the opprobries, injuries, and maledictions of the world, just as the wind called Cecias attracts the clouds. The peremptory reason is because they eat the turd of the world, that is to say, they feed upon the sins of the people, and as a noisome thing they are cast into the privies, that is, the convents and abbeys, separated from civil conversation, as the privies and retreats of a house are; but if you conceive how an ape in a family is always mocked and provokingly incensed, you shall easily apprehend how monks are shunned of all men, both young and old; the ape keeps not the house as a dog doth; he draws not in the plough as the ox; he yields neither milk nor wool as the sheep; he carrieth no burthen as a horse doth! That which he doth is only to spoil and defile all, which is the cause wherefore he hath of all men mocks, frumperies, and bastinadoes.

"After the same manner a monk (I mean those little, idle, lazy monks) doth not labour and work as do the peasant and artificer; doth not ward and defend the country as doth the soldier; cureth not the sick and diseased as the physician doth; doth neither preach nor teach as do the evangelical doctors and schoolmasters; doth not import commodities and things necessary for the commonwealth as the merchant doth; therefore is it that by and of all men they are hooted at, hated, and abhorred.' 'Yea, but,' said Grangousier, 'they pray to God for us.' 'Nothing less,' answered Gargantua; 'true it is, with a tingle-tangle jangling of bells they trouble and disquiet all their neighbours about them.' 'Right,' said the monk, 'a mass, a matine, a vesper well rung is half said. They mumble out great store of legends and psalms, by them not at all understood; they say many paternosters, interlarded with 'ave maries,' without thinking upon or apprehending the meaning

of what it is they say, which, truly, I call mocking of God, and not prayers. But, so help them God, as they pray for us, and not for being afraid to lose their victuals, their man-chets, and good fat pottage. All true Christians, of all estates and conditions, in all places and at all times, send up their prayers to God, and the Spirit prayeth and intercedeth for them, and God is gracious to them. Now such a one is our good Friar John; therefore every man desireth to have him in his company. He is no bigot; he is not for division; he is an honest heart, plain, resolute, good fellow; he travels, he labours, he defends the oppressed, comforts the afflicted, helps the needy, and keeps the close of the Abbey . . . ' (Book I., Chap. XL.)

" 'Then,' said Grangousier, 'go your ways, poor men, in the name of God the Creator, to whom I pray to guide you perpetually; and henceforward be not so ready to undertake these idle and unprofitable jôurneys (pilgrimages). Look to your families, labour every man in his vocation, instruct your children, and live as the good Apostle, St. Paul, directeth you. In doing whereof, God, His angels and saints, will guard and protect you, and no evil or plague at any time shall befall you.'

"Then Gargantua led them into the hall to take their refection; but the pilgrims did nothing but sigh, and said to Gargantua, 'O how happy is that land which hath such a man for their Lord! We have been more edified and instructed by the talk which he hath had with us than by all the sermons that ever were preached in our town.' 'This is,' said Gargantua, 'that which Plato saith (lib. v. De Republ.) :—"Those commonwealths are happy whose rulers philosophise, and whose philosophers rule."' Then caused he their wallets to be filled with victuals, and their bottles with wine, and gave unto each of them a horse to ease them upon their way, together with some pence to live upon." (Book I., Chap. XLV.)

TABLE-TALK IN PRAISE OF THE DECRETALS.—Now toppers, pray observe that while Homenas was saying his dry mass,

three collectors, or licensed beggars of the church, each of them with a large basin, went round among the people, saying, with a loud voice, "Pray remember the blessed men who have seen his face." As we came out of the temple, they brought their basins brim-full of Papimany chink to Homenas, who told us that it was plentiful to feast with; and that, of this contribution and voluntary tax, one part should be laid out in good drinking, another in good eating, and the remainder in both, according to an admirable exposition hidden in a corner of their holy decretals; which was performed to a T, and that at a noted tavern not much unlike that of Will's at Amiens. Believe me, we tickled it off there with copious cramming and numerous swillings.

I made two notable observations at that dinner; the one, that there was not one dish served up, whether of cabrittas, capons, hogs (of which latter there is great plenty in Papi-many), pigeons, conies, leverets, turkeys, or others, without abundance of magistral stuffing; the other, that every course, and the fruit also, was served up by unmarried females of the place, tight lasses, I'll assure you, waggish, fair, good-conditioned and comely. . . . They were clad all in fine, long, white albes, with two girts; their hair interwoven with narrow tape and purple ribbon, stuck with roses, gilly-flowers, marjoram, daffidown-dillies, thyme, and other sweet flowers.

At every cadence they invited us to drink and bang it about, dropping us neat and gentle courtesies; nor was the sight of them unwelcome to all the company; and as for Friar John, he leered on them side-ways, like a cur that steals a capon. When the first course was taken off, the females melodiously sang us an epode in the praise of the sacrosanct decretals; and then the second course being served up, Homenas, joyful and cheery, said to one of the she-butlers, "Light here, Clerica." Immediately one of the girls brought him a tall-boy brim-full of extravagant wine. He took fast hold of it, and fetching a deep sigh, said to Pantagrue, "My lord, and you, my good

friends, here's t' ye, with all my heart ; you are all very welcome." When he had tipped that off, and given the tall-boy to the pretty creature, he lifted up his voice and said, "Oh most holy decretals, how good is good wine found through your means." "This is the best jest we have had yet," observed Panurge. "But it would still be a better," said Pantagruel, "if they could turn bad wine into good."

"O seraphic sextum !" continued Homenas, "how necessary are you not to the salvation of poor mortals ! O cherubic clementinæ ! how perfectly the perfect institution of a true Christian is contained and described in you ! Oh, angelical extravagants ! how many poor souls that wander up and down in mortal bodies, through this vale of misery, would perish were it not for you ! When, ha ! when shall this special gift of grace be bestowed on mankind, as to lay aside all other studies and concerns, to use you, to peruse you, to understand you, to know you by heart, to practise you, to incorporate you, to turn you into blood, and incentre you into the deepest ventricles of their brains, the inmost marrow of their bones, and most intricate labyrinth of their arteries ? Then, ha, then ! and no sooner than then, nor otherwise than thus, shall the world be happy !" . . .

"Then, ah then !" continued Homenas, "no hail, frost, ice, snow, overflowing, or *vis major* ; then plenty of all earthly goods here below. Then uninterrupted and eternal peace through the universe, an end of all wars, plunderings, drudgeries, robbing, assassinations, unless it be to destroy these cursed rebels the heretics. Oh, then, rejoicing, cheerfulness, jollity, solace, sports, and delicious pleasures over the face of the earth. Oh ! what great learning, inestimable erudition, and godlike precepts, are knit, linked, rivetted, and morticed in the divine chapters of these eternal decretals !"

"Oh ! how wonderfully, if you read but one demy canon, short paragraph, or single observation of these sacrosanct decretals, how wonderfully, I say, do you not perceive to kindle

in your hearts a furnace of divine love, charity towards your neighbour, provided he be no heretic, bold contempt of all casual and sublunary things, firm content in all your affections, and ecstatic elevation of soul even to the third heaven.' (Book IV., c. 51.)

HOW, BY THE VIRTUE OF THE DECRETALS, GOLD IS SUBTLELY DRAWN OUT OF FRANCE TO ROME.—“I would,” said Epistemon, “it had cost me a pint of the best tripe that ever can enter into gut, so we had but compared with the original the dreadful chapters *execrabilis : de multa : si plures : de annatis per totum : nisi essent : cum ad monasterium : quod delectio : mandatum* ; and certain others, that draw every year out of France to Rome, four hundred thousand ducats and more.”

“Do you make nothing of this ?” asked Homenas. “Though methinks, after all, 'tis but little, if we consider that France, the most Christian, is the only nurse the see of Rome has. However, find me in the whole world a book, whether of philosophy, physic, law, mathematics, or other human learning, nay, even, by my God, of the Holy Scripture itself, that will draw as much money thence ? None, none, pshaw, tush . . . none can. You may look till your eyes drop out of your head, nay, till doomsday in the afternoon, before you can find another of that energy ; I'll pass my word for that. . . .

“As for you other good people, I must earnestly pray and beseech you to believe no other thing, to think on, say, undertake, or do no other thing than what's contained in our sacred decretals, and their corollaries, this fine sextum, these fine clementinæ, these fine extravagantes, O deific books ! So shall you enjoy glory, honour, exaltation, wealth, dignities, and preferments in this world ; be revered and dreaded by all, preferred, elected, and chosen above all men.

“For there is not under the cope of heaven a condition of men, out of which you'll find persons fitter to do and handle all things, than those who by divine prescience, eternal pre-

destination, have applied themselves to the study of the holy decretals.

"Would you choose a worthy emperor, a good captain, a fit general in time of war, one that can well foresee all inconveniences, avoid all dangers, briskly and bravely bring his men on to a breach or attack, still be on sure grounds, always overcome without loss of his men, and know how to make a good use of his victory? Take me a decretist.—No, no, I mean a decretalist." "Ho, the foul blunder," whispered Epistemon.

"Would you in time of peace find a man capable of wisely governing the state of a commonwealth, of a kingdom, of an empire, of a monarchy; sufficient to maintain the clergy, nobility, senate, and commons in wealth, friendship, unity, obedience, virtue, and honesty? Take a decretalist.

"Would you find a man who, by his exemplary life, eloquence and pious admonitions, may, in a short time, without effusion of human blood, conquer the holy land, and bring over to the holy church the mis-believing Turks, Jews, Tartars, Muscovites, Mammelucs, and Sarrabonites? Take me a decretalist.

"What makes, in many countries, the people rebellious and depraved, pages saucy and mischievous, students sottish and duncical? Nothing but that their governors, esquires, and tutors were not decretalists.

"But what on your conscience was it, d'ye think, that established, confirmed, and authorized those fine religious orders with whom you see the Christian world everywhere adorned, graced, and illustrated, as the firmament is with its glorious stars? The holy decretals.

"What was it that founded, underpropped, and fixed and now maintains, nourishes and feeds the devout monks and friars in convents, monasteries, and abbeys; so that did they not daily and nightly pray without ceasing, the world would be in evident danger of returning to its primitive chaos? The sacred decretals.

"What makes and daily increases the famous and celebrated

patrimony of St. Peter in plenty of all temporal, corporeal, and spiritual blessings? The holy decretals.

"What made the holy apostolic see and pope of Rome, in all times, and at this present, so dreadful in the universe, that all kings, emperors, potentates, and lords, willing, nilling, must depend on him, hold of him, be crowned, confirmed, and authorized by him, come hither to strike sail, buckle, and fall down before his holy slipper, whose picture you have seen? The mighty decretals of God.

"I will discover you a great secret. The universities of your world would have commonly a book, either open or shut, in their arms and devices: what book do you think it is?" "Truly I do not know," answered Pantagrue, "I never read it." "It is the decretals," said Homenas, "without which the privileges of all universities would soon be lost. You must own, I have taught you this; ha, ha, ha, ha!" . . .

"I was saying, then, that giving yourselves thus wholly to the study of the holy decretals, you'll gain wealth and honour in this world; I add that, in the next, you'll infallibly be saved in the blessed kingdom of heaven, whose keys are given to our good God and decretaliarch. O my good God, whom I adore and never saw, by thy special grace open unto us, at the point of death at least, this most sacred treasure of our holy mother church, whose protector, preserver, butler, chief larder, administrator, and disposer thou art; and take care, I beseech thee, O Lord, that the precious works of supererogation, the goodly pardons, do not fail us in time of need; so that the devils may not find an opportunity to gripe our precious souls, and the dreadful jaws of hell may not swallow us. If we must pass through purgatory, thy will be done. It is in thy power to draw us out of it when thou pleasest." Here Homenas began to shed huge, hot, briny tears, to beat his breast, and kiss his thumbs in the shape of a cross. (Book IV., c. 53.)

LOYOLA, IGNATIUS DE—1491-1556.*

Loyola, the founder of the "Society of Jesus" (the Jesuits), who 43 years after his death was declared *beatus* by Paul V., and subsequently canonized by Gregory XV., was without doubt a good and remarkable man. It is therefore the more regrettable that we have no record upon which implicit reliance can be placed as to many of the details of his life. Deified by his admirers, and traduced by the enemies of the Jesuits, plaudits and denunciations must equally be taken *cum grano salis*. The narrative, as given by the author adopted, is in brief this:—

Born in his father's castle of Loyola, in Guipuscoa, Spain, he was the youngest of the eleven children of a Biscayan noble. In early life he was for some time attached to the court of Ferdinand and Isabella, from which he, however, soon retired, and, following the example of seven of his brothers, entered the Spanish army, where he speedily attracted attention by his bravery and gallantry.

In 1521, André de Foix, at the head of a French army, laid siege to Pampeluna; Loyola was the soul of its defence, and when the gates were opened to the enemy, he retired to the citadel, destitute of men and ammunition, relying on his own personal courage for its defence. He rejected a proffered capitulation, and, sword in hand, awaited the enemy at the breach. During the assault a splinter of stone struck him on the left leg, and almost at the same moment a cannon ball broke his right leg. He fell, and with him fell the citadel. So great, however, was the admiration of the French at his bravery, that they attended to his wounds, and subsequently conveyed him to the Castle of Loyola.

The limb having been badly set, it became necessary to reset

* The matter of this sketch is derived from the "Histoire Religieuse, Politique et Littéraire de la Compagnie de Jésus," par J. Crétineau-Joly, Paris, 1859.

it. No sign of the agony attending the second operation was visible in Loyola's face. That was not his only suffering. He insisted on another and a dangerous operation, in order to prevent conspicuous, permanent lameness.

To relieve the tedium of enforced indolence, he asked for "The Tales of the Knights-Errant," the then popular literature of Spain. He was brought instead a "Life of Jesus," and a book entitled "The Flowers of the Saints." A sudden change came over him. Stifling his passion for military glory and the pleasures of society, he meditated a life of self abnegation. His resolution was taken. He secretly left the paternal mansion, and repaired to the monastery of Mont Serrat, then famous for its miraculous image of the Virgin. On arriving, Loyola passed the night in prayer, weeping, and the consecration of himself to a new and different warfare.

Next day, having hung his sword on a pillar of the church, and having exchanged his rich costume for a sack, and girded his waist with a coarse cord, he set out on foot for the small town of Manrese. It was the day of the feast of the Anunciation, 1522. He there condemned himself to fasting and maceration, and denying himself sleep, stretched upon the bare earth, he struggled through the nights with the demon of the flesh, and passed his days in prayer and begging. He subsequently retired to a cavern in a rock, inaccessible to human gaze, where, in the ecstasies of divine love, or in the cruel labours of incessant austerity, he waged on his body and soul a war, of which the anchorites of the desert had given but feeble example. What he thus did for God, God repaid him with usury.

Having had neither the leisure nor the taste for the sciences and the literature of his age, the knowledge of men—the most difficult of all sciences—was revealed to him. Thus, the master who was to form so many others was himself suddenly moulded by divine light; and that at or about the time he wrote his "Spiritual Exercises."

Full of the traditions of the crusaders, Loyola, without money or companion, started for the Holy Land; trusting to Providence, he refused all proffered aid. Embarked at Venice, he reached the Holy Land on the 4th September, 1523. He prostrated himself at the tomb of Jesus. Residence in Palestine being refused to the stranger, he commenced his return journey at the end of January, 1524.

During his homeward journey he became convinced that, in order to enable him to labour successfully for the salvation of others, familiarity with science and literature was a necessity, and that piety condemned to ignorance and blindness was rather injurious than useful. He resolved to acquire the necessary knowledge. He set out for Barcelona. He was then in his 33rd year. With the utmost diligence he prosecuted his studies first at Barcelona, and subsequently at the universities of Alcalá, Salamanca, and Paris.

At that time (1528) the university of Paris was the chief battle-field of the intellectual struggles between the advocates of the doctrines of Rome, of Luther, of Zwinglius, of Calvin, of Œcolampadius, of Melancthon, and others. The advocates of the new doctrines, invigorated by the sense of emancipation, were enthusiastic in their praise of liberty and reason. The advocates of the old, seeing in change nothing but confusion and ruin, appealed and adhered to authority. Neither contested the authority of the Bible. The struggle was as to the right of interpretation. The Roman church claimed the exclusive privilege for itself. Its opponents claimed it for each individual reader.

From Paris, Loyola went to the college of Montaigne, thence to that of Saint Barbe; and subsequently he studied theology with the Dominicans.

In the estimation of Loyola there were but two parties—the church of Rome, and those who were not of it. He was a soldier. He had mental visions of two hostile armies, of two standards, ever floating before him. Under the banner of the

church he resolved to fight the enemies of the church ; he conceived a species of military organization for spiritual warfare. "The Company of Jesus" was to him a reality, though as yet he had not matured his idea or unbosomed his plan to anyone. Pierre Lefevre and François Xavier were his first confidants and recruits.

On the day of the feast of the assumption, 1534, Loyola, with six others, met in the subterranean chapel of the church on Montmartre, where the faithful believed that Saint Denis had been decapitated.* There the seven, after fasting and prayer, vowed to live a life of perpetual chastity and poverty. They separated, having mutually promised—their theological studies being completed—to visit Jerusalem, and there, together, to glorify God, or, failing the possibility of their so doing within a year from that date, to prostrate themselves at the feet of the sovereign pontiff, there to swear obedience to him at all times and in all places. The place and time of reunion was Venice, the 25th January, 1537.

Loyola in the meantime revisited the place of his birth, unfolded to his relations and friends his experience and plans, and, resisting the entreaties of his eldest brother to abandon his project, preached to the people, and that with such success as to effect remarkable conversions. It was at this period that he introduced the prayer known as "*The Angelus*."

During the same period his colleagues had also made converts. The fame of this small body of learned enthusiasts and novel missionaries began to be noised abroad. The enterprise, regarded with jealousy by many members of the old orders of the church, was favoured by Paul III.

War prevented the projected visit to the Holy Land. Loyola, Lefevre, and Laynes set out for Rome, the others visited the most celebrated of the Italian universities for the purpose of enrolling recruits. Asked from place to place who and what they were, they replied, "We are united under the banner of Jesus Christ to combat heresy and vice : we are the Company of Jesus."

When at Storta, two leagues from Rome, we are told that Loyola, alone, went into a small chapel, and there commended to God his young Society and his entrance into the city, and that, whether as the result of powerful imagination, or of divine intervention, he fell into a profound ecstasy, and with the eye of faith saw the Eternal Father, who recommended him to His Son; whereupon Jesus, bearing his cross, accepted his devotion, as also that of his companions, and turning toward him with a sweet smile, said, "I will be propitious to you at Rome."

J. Crétineau-Joly says, "The church had at that time within its bosom enemies still more ravenous (than Protestantism); corruption had penetrated even into the sanctuary: fearful corruption, for it employed even things sacred to spread everywhere its germs: it seated itself upon the altar, it reigned in the cloister, it furnished the sectarians with their most formidable weapons; it was not the religion that the people discussed, it was its ministers, that is to say, the priests. In short, the priest, by abandoning himself without restraint or shame to every species of irregularity, had caused doubt to be cast on religion itself. Well might it then be said, and with more reason than it was said by Innocent III. of his times, 'Those whom Saint Peter in his solicitude has appointed to guard the people of Israel, do not watch over the flock during the night; on the contrary, they sleep, they keep far from the battle when Israel is a prey to Midian. The shepherd has degenerated into a mercenary, he no longer tends the flock, but himself despoils it of its milk and wool; he leaves the wolf free to enter the fold, he is no longer as a wall against the enemies of the house of the Lord. Hireling as he is, he flies before the error that he might destroy, and becomes its protector by his treason. Almost all have deserted the cause of God, and many among the remainder are useless.'"

We are told that Paul III. (1534-1550) was alarmed at the situation, which threatened, if possible, to grow worse unless some violent remedy was forthwith applied, for the evil was

universal ; it was in the court of Rome, in the dioceses, and in the monasteries ; he felt that it was idle to attack heresy while such things existed. To undertake the necessary work of reform he, in 1538, named a congregation or commission of investigation, composed of four cardinals and five prelates or abbots, selected from the most virtuous and learned of his dignitaries.

After alluding in their report to many of the existing abuses, the commission said, "Another abuse needing correction exists in the religious orders, which are so corrupt as to be a great scandal to the laity, who are seriously injured by their example. We believe their entire abolition to be a necessity ; but in order to avoid damage to anyone whomsoever, we suggest that they be forbidden to receive any more novices : in that way they will soon become extinct without detriment to individuals, and may be replaced by the truly religious. As to immediate action, we believe the best thing that can be done is to dismiss from the monasteries all the young people who have not as yet made profession."

In the report an exception was made in favour of the Dominicans.

Such was the condition of the Roman Church from its own commissioners' point of view when Loyola, Lefevre, and Laynes prostrated themselves at the feet of Paul III.

On the 27th September, 1540, after some little delay and considerable discussion with several of the cardinals, the Pope published his bull *Regimini militantes Ecclesie*, by which was created the "*Society of Jesus*." It ran as follows :—

"PAUL, BISHOP, SERVANT OF THE SERVANTS OF GOD, FOR PERPETUAL REMEMBRANCE.—Appointed, notwithstanding our unworthiness, by the will of our Lord to the government of our church militant, burning with all the zeal that our duty as pastor demands for the salvation of souls, we accord all apostolical favour to the faithful, be they whom they may, who express to us their desire for it, reserving to ourselves the right

to ordain, after mature consideration of time and place, what we may consider useful and salutary in the Lord.

“Thus, it having been brought to our knowledge that our dear sons Ignatius de Loyola, Peter Lefevre, James Laynes, Claude de Jay, Pasquier Bronet, Francis Xavier, Alphonsus Salmeron, Simon Rodriguez, John Codure, and Nicholas de Babadilla, all priests of the towns and dioceses, respectively, of Pampeluna, Geneva, Siguenza, and Placentia, masters of arts, graduates of the university of Paris, and for several years students of theology, we having learned, as we say, that these men, moved, as it is righteous to believe, by the breath of the Holy Ghost, have come together from different countries of the globe, and having renounced the pleasures of the age, have consecrated their lives to the service of our Lord Jesus Christ, and ourselves and the Roman pontiffs, our successors. They have already laboured in a praiseworthy manner in the vineyard of our Lord, preaching publicly the word of God, they having first obtained the requisite permission, exhorting the faithful in particular to lead a holy life and merit eternal happiness, pressing upon them the necessity of pious meditation, ministering in the hospitals, instructing children and the simple in matters necessary for a Christian education; in one word, exercising with an ardour worthy of all commendation, throughout the various countries they have travelled, all works of charity and spiritual consolations. Finally, having come to this illustrious city, steadfastly adhering to their tie of charity, in order to cement and preserve the bond of their Society in Jesus Christ, they have resolved a plan of life conformable to evangelical precepts, to the canonical decisions of the fathers, as their experience has shown them to be most advantageous for the object they have in view. Indeed, the manner of life expressed in the formula of which we have spoken, has not merely merited the praise of men wise and filled with zeal for the honour of God, but it has so pleased some among them as to have resolved them to embrace it.

“Here then is the mode of life suggested :—Whosoever is willing, under the standard of the cross, to bear arms for God, and to serve the only Lord and the Roman pontiff, his vicar on earth, in our Society which we desire to be called the ‘*Company of Jesus*,’ after having made a solemn vow of perpetual chastity, should offer himself as willing to join a society, the chief object of which is to labour for the advancement of souls in the Christian life and doctrine, and in the propagation of the faith by public preaching and private teaching of the word of God, by spiritual exercises and works of charity, notably in teaching the catechism to children and those uninstructed in Christianity, and in taking the confession of the faithful for their spiritual consolation. To these ends such as desire to become members must keep always before their eyes—first, God, and afterwards, the constitution of the institution that they have embraced. As this path leads to God, every effort should be made to attain the object proposed by God himself, according to the measure of grace received by each from the Holy Spirit, and the peculiar vocation of the individual, so that no one may permit his zeal to carry him beyond the dictates of true learning. It is the general, or prelate, whom we shall select, that shall determine the degree and duties of each, all of which shall be under his control, that proper order, so necessary in every well regulated community, may be observed. The general will have the power to make constitutions conformable to the objects of the institution, with the consent of those who shall be associated with him, and in council, where everything shall be determined by the majority of votes.

“In important and permanent affairs the council shall consist of the majority of the Society, whom the general may conveniently be able to assemble together; and as to the less important matters of the moment, they shall be determined by the majority of those who may happen to be where the general then is. As to the right to command, that shall belong exclusively to the general.

"Let every member of the company, therefore, know and remember, not merely at the date of his profession, but during the whole of his life, that all this company and all who compose it fight for God under the orders of our most holy lord the Pope, and other Roman pontiffs, his successors. Although we have learned from the gospel, and from the orthodox faith, and although we profess firmly to believe that all the faithful in Jesus Christ are subject to the Roman pontiff as to their chief, and to the vicar of Jesus Christ—yet in order that the humility of our Society may be still greater, and that the separation of each of us, and the abnegation of our wills may be more perfect, we believe that it will be most useful, in addition to this first tie common to all the faithful, to further engage ourselves by a peculiar vow, so that anything that the present Roman pontiff or his successors may command us concerning the progress of souls and the propagation of the faith, we shall be compelled forthwith to do without tergiversation or excuse, in whatever country we may be sent, whether it be among the Turks or any other infidels, or even to the Indies, whether it be in respect of heretics, or schismatics, or infidels whatsoever. Well, then, let those who desire to join us examine well, before taking on them this burden, if they have sufficient spiritual strength to be able, following the counsel of the Lord, to accomplish this task; that is to say, if the Holy Spirit that actuates them promises them sufficient grace to enable them to hope that, with its aid, they will be able to support the burden of their vocation; and when, by the inspiration of the Lord, they shall be enrolled in this army of Jesus Christ, they will, day and night, with reins girt, be ever ready to discharge this weighty debt. In order, however, that we may neither solicit nor refuse those missions into different countries, we all and each of us oblige ourselves and himself never, directly or indirectly, to solicit the pope in respect thereof, but to abandon ourselves and himself absolutely to the Will of God, the pope (his vicar), and the general. The general shall himself promise, as

do the others, not to solicit the pope in respect of any mission to be undertaken by himself, unless, indeed, with the sanction of the Society. All shall swear to obey the general in everything which concerns the observance of our rules, and the general shall prescribe those things that shall secure the object in view—of God and the Society. In the exercise of his charge let him be ever mindful of the goodness, the mildness, and the charity of Jesus Christ, as of the humble expressions of Saint Peter and Saint Paul, and let him and his council never violate this rule. Above all things, let him lay to heart the instruction of the young and ignorant in the knowledge of the Christian doctrine, of the ten commandments and other like elements, regard being had to the circumstances of the person, the place, and the times. It is of the utmost importance that the general and his council observe this article with great attention, because it is impossible to raise, without foundations, the edifice of the faith among us to the extent desirable, or to succeed, except in proportion as people become more learned. Let no one refuse this duty as being less agreeable or brilliant, for no other is more useful, whether for our neighbour's edification or for ourselves, as our exercise in charity and humility. The inferiors shall be bound in all things concerning the institution to obey the general, not merely for the benefit of the order, but for the diligent practice of humility or virtue, which cannot be too highly extolled. Let them in his person strive to see Jesus Christ as present to them in the flesh, and let them pay to him all possible reverence. As experience has taught us that the purest life—the life the most agreeable and edifying to our neighbours—is that which is the farthest removed from the contagion of avarice, and knowing also that our Lord Jesus Christ will provide all that is necessary for the food and clothing of His servants who seek only the kingdom of God, we desire that all and each makes a vow of perpetual poverty, declaring themselves incapable, whether individually or collectively, for the benefit or use of the Society, of any civil right to

property, whether immovable or movable, and that they will content themselves with what may be given to them to procure necessities. Nevertheless, they may have colleges, with revenues in the universities for the benefit of students; the general of the Society reserving to himself the administration of such property and the superintendence of the students. It is for him to determine the choice, refusal, reception, and exclusion both of superiors and students, and the rules touching the instruction, edification, and correction of the students, their food and clothing, and every other matter of administration and *régime*, so that the students may not abuse the said property, nor the Society itself convert it to its own use, but preserve it for the benefit of the students. When the said students shall have made sufficient progress in piety and learning, and have given proof of fitness, they may be admitted into our company, of which all the members who shall be in holy orders, though they may have neither benefice nor ecclesiastical revenue, shall be bound to officiate, according to the rite of the church, separately and individually, and not collectively and in chorus. Such is the outline that we have been able to trace of our profession, as was the good pleasure of our lord Paul III. and the apostolic see. We have made it for the information of those who desire at present to understand our constitution, and for the instruction of those who may succeed, should it happen by the will of God that we should ever have imitators. This manner of life being beset with great and numerous difficulties, as we well know by experience, we have judged it expedient to ordain that no one shall be admitted into this company who has not been long and carefully tested, and, as a consequence, found prudent in Jesus Christ. When distinguished for learning and purity of Christian life, one may then be received into the arms of Jesus Christ, who will favour our humble efforts for the glory of God the Father, to whom alone be glory and honour throughout eternity. So be it.

“Not finding anything in this exposition but piety and holi-

ness, in order that these associates who have presented to us their humble petition may adopt their plan of life with the more ardour, from the fact of its approval by the apostolic see. We, in virtue of the apostolic authority, by the tenor of these presents and certain knowledge, approve, confirm, bless, and give perpetuity to the foregoing exposition, in whole and in every part; and as to the associates themselves, we take them under our protection and that of the holy apostolic see, according to them, however, full liberty and power to construct such regulations as they shall deem conformable to the objects of this Society, the glory of our Lord Jesus Christ, and the edification of our neighbours, notwithstanding the apostolic constitutions and ordinances of the general council, and of our predecessor of happy memory, the pope Gregory X., or all others to the contrary notwithstanding.

"We will, however, that of those who shall desire to make profession of this mode of life, not more than sixty* shall at any one time be admitted or received into the Society.

"Let no one dare to infringe or contradict anything herein contained respecting our approval, favourable reception, concession, and will. Let him who would dare to attempt it know that he would thereby incur the indignation of almighty God, and the ever blessed apostles, Peter and Paul.

"Given at Rome at Saint Marc, the year of the incarnation of our Lord, 1540, the fifth of the calends of October, the sixth of our pontificate."

Don Ignatius de Loyola, then in his forty-ninth year, was unanimously elected the first general of the "Society of Jesus," on the 17th April, 1541.

J. Cr  tineau Joly says, "Never has any work of man excited so much discussion, or been subjected to so minute investigation, as that which embodies the constitutions and declarations of the Society of Jesus. In all ages, in all coun-

* This clog was removed by the Bull of 14th March, 1543. They ultimately became very numerous.

tries, it has evoked adversaries, who, with the view of demonstrating its fundamental defect, use every argument that honest error or that hatred can employ; and, on the other hand, admirers, who, convinced by reflection or led away by zeal (not always in accordance with facts), endeavour rather to justify its faults than to exalt its doctrines and precepts."

To some it may appear monstrous to confound the founder or the original members of the Society with those who from time to time have made the word "Jesuit" synonymous with all that is odious. That Loyola brought into being a mighty engine cannot be doubted; that his object in bringing it into being was pure seems equally clear; that it was an engine capable of being turned to the worst as well as to the best of purposes is no less so.

It is not therefore surprising to find, notwithstanding the unquestioned virtue and learning of many of the members of the Society, that the Jesuits as a body have, by a mighty consensus of European opinion, been declared dangerous.*

* The society was condemned by the Sorbonne, Paris, 1554.

Expelled from France, 1594; re-admitted, 1604, but, after several decrees, was totally suppressed in France and its property confiscated, 1764.

It was ordered by Parliament to be expelled from England in 1579, 1581, 1586, 1602, and by the Catholic Relief Acts in 1829.

It was expelled from Venice in 1607, from Holland in 1708, from Portugal in 1750, from Spain in 1767.

It was abolished by Clement XIV. 21st July, 1773, but restored by Pius VI. 7th August, 1814.

It was expelled from Belgium in 1818; from Russia in 1820; from Spain in 1820, 1835; from France, 1831, 1845; from Portugal, 1834; from Sardinia, from Austria and other states, 1848; from Italy and Sicily, 1860.

In consequence of the activity of the order on behalf of the papal supremacy, a *bill* for its expulsion from Germany was passed by the Parliament at Berlin 19th June, promulgated 5th July, 1872.

The expulsion of the Jesuits from Italy decreed 25th June, was carried into execution 20th October—2nd November, 1873.

The order in France was dissolved by a decree of the 30th March, 1880.

The decree for their expulsion from France, dated the 30th March, was executed on the 30th June, 1880. (*See Haydn's Dictionary of Dates*).

MONTAIGNE—1533-1592.*

Referring to the essays of this remarkable man, the Châtelaine des Rochers exclaimed, "Oh, what capital company he is, the dear man! He is my old friend; and just for the reason that he is so, he always seems new. My God! how full is that book of sense!" Balzac said that he had carried human reason as far and as high as it could go, both in politics and in morals. He certainly culled from the writings of the Greeks and Romans, for the benefit of his own time, wisdom then unknown save to the very few, and, by talents never surpassed, made the profound simple.

Some, it is true, and among them men of reputation, have charged Montaigne with licentiousness, impiety, materialism, epicurianism, and egotism. It cannot be denied that there is much in his essays that would not be written by any serious author of our own days, much that makes his essays as a whole unfit for the perusal of the young, and equally unprofitable to all others, not to say, at times, even distasteful; but may not the same be said even of parts of the Old Testament, of the Greek, Roman, and early European classics?

When we remember the age in which Montaigne wrote, when we have read Rabelais, who, be it remembered, was a divine and one of the best of men, and Boccaccio, and other writers of or about the same period, it is not with Montaigne's coarseness, but with his delicacy of reference to matters then freely discussed, though now not even mentioned in polite society, that we are impressed. Speaking of his own times, he says, "Now the ordinary discourse and common table-talk is nothing but boasts of favours received, and the secret liberality of ladies." (III., 102.)

Is it possible that the very object of his plain speaking about

* The matter of this sketch is derived from the "Essays of Montaigne," translated by Charles Cotton, edited by William Carew Hazlitt. 3 vols. Reeves and Turner, Strand.

sexual matters was, by laying everything bare, to put an end to morbid curiosity and sensual conversation? Speaking of his daughter, then of a marriageable age, he says, "She was one day reading before me in a French book, where she happened to meet the word '*fouteau*,' the name of a tree very well known; the woman to whose conduct she is committed stopped her short a little roughly, and made her skip over that dangerous step. I let her alone, not to trouble their rules, for I never concern myself in that sort of government; feminine polity has a mysterious procedure, we must leave it to them; but if I am not mistaken, the conversation of twenty lacqueys could not in six months' time have so imprinted on her fancy the meaning, usage, and all the consequences of the sound of these wicked syllables, as this good old woman did by her reprimand and interdiction." (III., 93.) He says, "Livia was wont to say that to a virtuous woman a naked man was but a statue. The Lacedæmonian women, more virgins when wives than our daughters are, saw every day the young men of their city stripped naked in their exercises, themselves little heeding to cover their thighs in walking, believing themselves, says Plato, sufficiently covered by their virtue without any other robe." (III., 98.) As to his alleged impiety:—Nothing is more manifest on almost every page of his work than the fact that his notions of Deity were not those of the vulgar masses, who are incapable of lofty conceptions whether of God or of man. A perfect master of the many and conflicting creeds of the ancients, and but too familiar with the horrors of the period in which he lived, caused by religious bigotry, he counselled adhesion to the old faith as being an ancient institution, a something known.

In his apology for Raimond de Sebonde, written, unless I am greatly mistaken, mainly for the benefit of the Protestants, and to convince the Catholics that, as no theory is necessarily right, toleration cannot be wrong, he says (II., 324), "I do not easily change, for fear of losing by the bargain; and since I am not capable of choosing, I take other men's choice, and keep

myself in the state wherein God has placed me ; I could not otherwise prevent myself from perpetual rolling. Thus have I, by the grace of God, preserved myself entire, without anxiety or trouble of conscience, in the ancient belief of our religion, amidst so many sects and divisions as our age has produced." What he intended by this may possibly be gathered from the following passage which occurs two pages further on :—"How long is it that physic has been practised in the world ? 'Tis said that a new-comer, called Paracelsus, changes and overthrows the whole order of ancient rules, and maintains that, till now, it has been of no other use but to kill men. I believe that he will easily make this good, but I do not think it were wisdom to venture my life in making trial of his new experiments. We are not to believe everyone, says the precept, because everyone can say all things." (II., 326.) Elsewhere he says, "In the present broils of this kingdom, my own interest has not made me blind to the laudable qualities of our adversaries, nor to those that are reproachable in those of men of our party. Others adore all of their own side ; for my part, I do not so much as excuse most things in those of mine ; a good work has never the worse grace with me for being made against me." (III., 304.)

A close, constant, and accurate observer of human nature, he studied himself as well as others. With the ancient Greeks and Romans, their doings, their theories, and their sayings, he was as intimate as with his immediate friends, even if not more so. Between what is called learning and wisdom he drew a broad distinction.

Montaigne hated the pedant with a bitter hatred ; to him pedants appeared as intellectual blight—the curse of humanity. He could understand man happy in a state of natural simplicity, or in a condition of true enlightenment, but to him, the intermediate condition was appalling—the condition of false light, of ignorant arrogance, of quackery, of pedantry—but let him speak for himself :—"The Baron de Caupane, in Chalosse, and

I have betwixt us the advowson of a benefice of great extent at the foot of our mountain called Labontan. It is with the inhabitants of this, as 'tis said of those of the Val d'Angrongne; they lived a peculiar sort of life, their fashion, clothes, and manners distinct from other people; ruled and governed by certain particular laws and usages received from father to son, to which they submitted without other constraint than reverence for custom. This little state had continued from all antiquity in so happy a condition, that no neighbouring judge was ever put to the trouble of inquiring into their doings; no advocate was ever retained to give them counsel; no stranger ever called in to compose their differences; nor was ever any of them seen to go a begging. They avoided all alliances and traffic with the outer world, that they might not corrupt the purity of their own government; till, as they say, one of them, in the memory of man, having a mind spurred on with a noble ambition, took it into his head, in order to bring his name into credit and reputation, to make one of his sons something more than ordinary, and having put him to learn to write in a neighbouring town, made him at last a brave village notary. This fellow, having acquired such dignity, began to disdain their ancient customs, and to buzz into the people's ears the pomp of the other parts of the nation. The first prank he played was to advise a friend of his, whom somebody had offended by sawing off the horns of one of his goats, to make his complaint to the royal judges thereabout, and so he went on, from one to another, till he had spoiled and confounded all. In the tail of this corruption they say there happened another, and of worse consequences, by means of a physician who, falling in love with one of their daughters, had a mind to marry her and to live amongst them. This man first of all began to teach them names of fevers, colds, and imposthumes, the seat of the heart, liver, and intestines, a science till then utterly unknown to them; and instead of garlic, with which they were wont to cure all manner of diseases, how painful or extreme soever, he

taught them, though it were but for a cough or any little cold, to take strange mixtures, and began to make a trade, not only of their health, but of their lives. They swear that till then they never perceived the evening air to be offensive to the head, that to drink when they were hot was hurtful, and that the winds of autumn were more unwholesome than those of spring; that since the use of physic they find themselves oppressed with a legion of unaccustomed diseases, and that they perceive a general decay in their ancient vigour, and their lives are cut shorter by the half." (II., 600.)

From one point of view Montaigne certainly appears to place himself sufficiently prominently before his readers, but it may be fairly asked—Could he have said of any other much that he says of himself without the charge of being a cynic? His object must be taken to have been the full and free discussion of human nature. Liking to hear what others had to say of themselves, whether seriously or in jest, he wrote of himself as one thinking aloud. Those who wished to hear or read what he had to say were at liberty, but were not obliged, to do so. He had a great veneration for his ancestry in general, and a sincere regard for his father. "If," he says, "my posterity, nevertheless, shall be of another mind, I shall be revenged on them; for they cannot care less for me than I shall then do for them. All the traffic that I have in this with the public, is that I borrow their utensils of writing, which are more easy and most at hand; and in recompense shall, peradventure, keep a pound of butter in the market from melting in the sun; and though nobody shall read me, have I lost my time in entertaining myself so many idle hours, and in so pleasing and useful thoughts?" (II., 451.)

Montaigne regarded his essays as his memoirs, for he says, "In these memoirs, if anyone observe, he will find that I have either told or designed to tell all; what I cannot express I point out with my finger. By these footsteps a sagacious mind may easily find all other matters." (I., 409.) "I leave nothing to be desired, or to be guessed at, concerning me."

Every scholar, not in Montaigne's category of pedant, knows how liberally subsequent writers of reputation have helped themselves, and that in too many cases without acknowledgment, to the fruits of Montaigne, and should it have been his misfortune not to have read the essays till he had read much else, he cannot have failed to be struck with the fact that though not having read the essays, he was familiar with much of their contents, though possibly garbled, distorted, and stripped of their beauty and aptitude. Montaigne is one of those rare geniuses who know how to present the truth to those to whom it is not acceptable without giving offence, one who could ridicule theories and denounce practices with safety at a time when equally well-meaning, but less able, men lost their heads for enunciating a tithe of the same. Listen to what he says in his essay "Of Books."—"I make others say for me, not before but after me, what, either for want of language or want of sense, I cannot myself so well express. I do not number my borrowings, I weigh them. . . . In reasons, comparisons, and arguments, if I transplant any into my own soil, and confound them amongst my own, I purposely conceal the author, to awe the temerity of those precipitate censors who fall upon all sorts of writings, particularly the late ones. . . . I will have them give Plutarch a fillip on my nose, and rail against Seneca when they think they rail at me. . . . I shall love anyone who can unplume me, that is, by clearness of understanding and judgment, and by the sole distinction of the force and beauty of the discourse." (II., 100.)

In this essay I propose to give a brief sketch of Montaigne's life, and then to make a few extracts from his 107 charming essays.

Michael, the son of Pierra Eyquem, was born in his father's chateau of St. Michael de Montaigne, as he informs us, between eleven and twelve o'clock in the day, the last of February, 1523. His father, a man of position and of austere probity, had a particular regard for honour and for propriety in his

personal attire. He had strong and somewhat peculiar views as to the education of his children. He caused the infant Michael to be held at the font by persons of the meanest position, he put him out to nurse with a poor villager, he accustomed him to the most simple diet, for he desired his sympathies to be with the poor. In lieu of the startling "It is time to get up," he caused the child Michael to be awakened by the sound of some agreeable music. Destined to be a ruler of men, his father determined that he should not merely have the best possible education, but that the then *sine qua non* of learning—Latin—should come to him, as it were, with his mother's milk. "The expedient my father found out for this was that in my infancy, and before I began to speak, he committed me to the care of a German, who since died a famous physician in France, totally ignorant of our language, but very fluent, and a great critic in Latin. This man, whom he had fetched out of his own country, and whom he entertained with a very great salary for this only end, had me continually with him; to him there were also joined two others of inferior learning, to attend me and to relieve him; who all of them spoke to me in no other language but Latin. As to the rest of his family, it was an inviolable rule that neither himself nor my mother, man nor maid, should speak anything in my company but such Latin words as everyone learned only to gabble with me. It is not to be imagined how great an advantage this proved to the whole family; my father and my mother by this means learned Latin enough to understand it perfectly well, and to speak it to such a degree as was sufficient for any necessary use, as also those of the servants did who were most frequently with me. In short, we Latinized it at such a rate that it overflowed to all the neighbouring villages, where there yet remain, that have established themselves by custom, several Latin appellations of artisans and their tools. As for what concerns myself, I was above six years of age before I understood either French or Perigoidin, any more than Arabic; and without art, books,

grammar, or precept, whipping, or the expense of a tear, I had by this time learned to speak as pure Latin as my master himself, for I had no means of mixing it up with any other." (I., 120.)

At six years of age Montaigne was sent to the College of Guienna at Bordeaux, and at thirteen had passed through all the classes. At the age of fourteen he commenced the study of law. In 1554, he received the appointment of councillor in the parliament of Bordeaux; in 1559, he was at Bar-le-Duc with the court of Francis III., and in the year following he was present at the declaration of the majority of Charles IX.

Between 1556 and 1563, Etienne de la Boetic was the idol of his heart, but death prevented her becoming his wife. Though a believer in the doctrine of Aristotle, that no man should marry before he is thirty-five, he espoused François de Chassigne in 1566, when only in his thirty-third year. He received from Henry II. the title of gentleman-in-ordinary to the king, and was admitted by Charles to the order of St. Michael, the then highest honour of the French noblesse. Though historians are not agreed as to whether Montaigne was ever in the army, several passages in the essays seem to indicate that he not only took service, but was actually in several campaigns with the Catholic armies. Be this as it may, it appears clear that he, in his thirty-eighth year, resolved to dedicate the remainder of his life to study, for he then caused the Latin, of which the following is a translation, to be inscribed on one of the walls of his chateau: "In the year of Christ, . . . in his thirty-eighth year, on the eve of the callends of March, his birthday, Michael Montaigne, already weary of court employment and public honours, withdrew himself entirely into the converse of the learned virgins, where he intends to spend the remaining moiety of the time allotted to him in tranquil seclusion."

In 1569, he published a translation of the "Natural Theology of Raymond de Sebonde"; in 1571, he published certain *opus-*

cula of Etienne de la Boetic; the former undertaken at the instance of his father, the latter as a tribute to the memory of his departed love.

The first published collection of his essays appeared in 1580, he then being in his fifty-seventh year. Montaigne had for some years suffered from renal colic or gravel. He resolved to try the effect of travel and the waters. He was universally well received, and was at the waters of La Villa when, on the 7th September, 1581, he learned by letter that he had been elected mayor of Bordeaux on the 1st August. Montaigne having excused himself, received from Henry III. the following :—

“Monsieur de Montaigne,—Inasmuch as I hold in great esteem your fidelity and zealous devotion to my service, it has been a pleasure to me to learn that you have been chosen mayor of my town of Bordeaux. I have had the agreeable duty of confirming the election, and I did so the more willingly seeing that it was made during your distant absence! wherefore it is my desire, and I require and command you expressly, that you proceed without delay to enter on the duties to which you have received so legitimate a call. And so you will act in a manner very agreeable to me, while the contrary will displease me greatly. Praying God, M. de Montaigne, to have you in His holy keeping.

“Written at Paris, the 25th day of November, 1581.

HENRI.

“To Monsieur de Montaigne, Knight of my Order, Gentleman-in-Ordinary of my Chamber, being at present in Rome.”

During his tenure of office, he applied himself to the maintenance of peace between the two religious factions which at that time divided the town of Bordeaux, and at the end of his first two years of office, his grateful fellow-citizens conferred on him, in 1583, the mayoralty for two years more, a distinction which, as he tells us, had been enjoyed only twice before.

In 1582, an improved and enlarged edition of his essays was

published. In 1587, the third edition, also enlarged, made its appearance. In 1588, the fourth edition was published in Paris. Between that year and the date of his death, he devoted as much of his leisure as his malady permitted to meditation and the improvement of his essays. He died on the 13th September, 1592.

Verbatim Extracts with References.

Humanity generally.—One asking Socrates of what country he was, he did not make answer, of Athens, but of the world. (I., 186.)

Everyone thinks that the sovereign stamp of human nature is imprinted in him, and that from it all others must take their rule ; and that all proceedings which are not like his are feigned and false. What brutal stupidity ! (II., 527.)

Life in itself is neither good nor evil ; it is the scene of good or evil, as you make it. And if you have lived a day, you have seen all ; one day is equal and like to all other days. There is no other light, no other shade ; this very sun, this moon, these very stars, this very order and disposition of things, is the same your ancestors enjoyed, and that shall also entertain your posterity. (I., 92.)

Let one consider whether there is any one part of our bodies that does not often refuse to perform its office at the precept of the will, and that does not often exercise its function in defiance of her command. They have, every one of them, passions of their own, that rouse and awaken, stupefy and benumb them, without our leave or consent. How often do the involuntary motions of the countenance discover our inward thoughts, and betray our most private secrets to the bystanders ? (I., 105.)

We do not command our hairs to stand on end, nor our skin to shiver either with fear or desire ; the hands often convey themselves to parts to which we do not direct them ; the tongue will be interdict, and the voice congealed, when we know not how to help it. (I., 105.)

Why do the physicians possess, beforehand, their patients' credulity with so many false promises of cure, if not to the end that the effect of imagination may supply the imposture of their decoctions? They know very well that a great master of their trade has given it under his hand that he has known some with whom the very sight of physic would work. (I., 107.)

A woman, fancying she had swallowed a pin in a piece of bread, cried and lamented as though she had an intolerable pain in her throat, where she thought she felt it stick; but an ingenious fellow that was brought to her, seeing no outward tumour nor alteration, supposing it to be only a conceit taken at some crust of bread that had hurt her as it went down, caused her to vomit, and, unseen, threw a crooked pin into the basin, which the woman no sooner saw, but believing she had cast it up, she presently found herself eased of her pain. (I., 108.)

We are not to judge what is possible and what is not, according to what is credible and incredible to our apprehension. (II., 527.)

Philosophy thinks she has not ill employed her talent, when she has given the sovereignty of the soul and the authority of restraining our appetites to reason. (II., 531.)

Nature has placed us in the world free and unbound; we imprison ourselves in certain straights. (III., 251.)

Nature has with a motherly tenderness observed this, that the actions she has enjoined us for our necessity should be also pleasant to us, and she invites us to them, not only by reason, but also by appetite, and 'tis injustice to infringe her laws. (III., 438.)

To attempt to kick against natural necessity is to represent the folly of Ctesiphon, who undertook to kick with his mule. (III., 411.)

Our well-being is nothing but the privation of ill-being; and this is the reason why that sect of philosophers which sets the greatest value upon pleasure, has fixed it chiefly in insensibility of pain. (II., 213.)

Now all knowledge is conveyed to us by the senses, they are our masters: "It is the path by which faith finds its way to enter the human heart and the temple of the mind." Science begins by them, and is resolved into them. (II., 350.)

If the senses be our first judges, it is not our own that we are alone to consult; for in this faculty beasts have as great or greater right than we: it is certain that some of them have the sense of hearing more quick than man, others that of seeing, others that of feeling, others that of touch and taste. (II., 363.)

We should therefore, to make a right judgment of the operations of the senses, be first agreed with beasts; and secondly, amongst ourselves, which we by no means are, but enter at every turn into dispute, seeing that one man hears, sees, or tastes something otherwise than another does; and contest as much as upon any other thing about the diversity of the images that the senses represent to us. (II., 365.)

Then our senses themselves hinder one another: a picture seems raised and embossed to the sight; in the handling it seems flat to the touch. Shall we say that musk, which delights the smell and is offensive to the taste, is agreeable or not? (II., 365.)

Our condition always accommodating things to itself, and transforming them according to itself, we cannot know what things truly are in themselves, seeing that nothing comes to us but what is falsified and altered by the senses. (II., 367.)

The sects that controvert the knowledge of man, do it principally by the uncertainty and weakness of our senses; for since all knowledge is by their means and mediation conveyed unto us, if they fail in their report, if they corrupt or alter what they bring us from without, if the light which by them creeps into the soul be obscured in the passage, we have nothing else to hold by. From this extreme difficulty all these fancies proceed—that every subject has in itself all we there find: that it has nothing in it of what we think we there find. (II., 354.)

We wake sleeping, and sleep waking. I do not see so clearly in my sleep; but as to my being awake, I never find it clear enough and free from clouds; moreover, sleep, when it is profound, sometimes rocks even dreams themselves asleep, but our awaking is never so sprightly that it rightly and thoroughly purges and dissipates those reveries which are waking dreams, and worse than dreams. (II., 362.)

Those who have compared our life to a dream were, peradventure, more in the right than they were aware of. (II., 362.)

That the senses are very often masters of our reason, and constrain it to receive impressions which it judges and knows to be false, is frequently seen. (II., 357.)

To judge of the appearances that we receive of subjects, we ought to have a judicatory instrument; to prove this instrument we must have demonstration; to verify this demonstration, an instrument; and here we are upon the wheel. Seeing the senses cannot determine our dispute, being themselves full of uncertainty, it must be reason that must do it; but no reason can be established but upon the foundation of another reason; and so we run back to all infinity. (II., 368.)

If what the Epicureans say be true, viz.:—"We have no knowledge if the appearances of the senses be false"; and if that also be true which the Stoics say:—"The appearances of the senses are so false that they can furnish us with no manner of knowledge," we shall conclude, to the disadvantage of these two great dogmatical sects, that there is no science at all. (II., 356.)

Of the pleasures and goods that we enjoy, there is not one exempt from some mixture of ill and inconvenience. (II., 461.)

When I religiously confess myself to myself, I find that the best virtue I have, has in it some tincture of vice. (II., 463.)

The soul that has no established aim loses itself, for, as it is said, "He who lives everywhere lives nowhere." (I., 35.)

And, come the worst that can come, the distribution and variety of all the acts of my comedy are performed in a year.

If you have observed the revolution of my four seasons, they comprehend the infancy, the youth, the virility, and the old age of the world : the year has played his part, and knows no other art but to begin again : it will always be the same. (I., 92.)

Desires are either natural and necessary, or natural and not necessary, or neither natural nor necessary, of which last sort are almost all the desires of men ; they are all superfluous and artificial. (II., 183.)

'Tis commonly said that the justest portion nature has given us of her favours is that of sense ; for there is no one who is not contented with his share. (II., 442.)

I think my opinions are good and sound, but who does not think the same of his own ? (II., 442.)

LIFE AND DEATH.—Wherever your life ends it is all there. The utility of living consists not in the length of days, but in the use of time ; a man may have lived long, and yet have lived but a little. Make use of time while it is present with you. (I., 94.)

The end of our race is death ; 'tis the necessary object of our aim, which, if it fright us, how is it possible to advance a step without a fit of ague ? The remedy the vulgar use is not to think on't ; but from what brutish stupidity can they derive so gross a blindness ? They must bridle the ass by the tail. (I., 77.)

Philosophy ordains that we should always have death before our eyes to see and consider it before the time, and then gives us rules and precautions to provide that this foresight and thought do us no harm ; just so do physicians, who throw us into diseases to the end they may have whereon to employ their drugs and their art. (III., 358.)

Where death waits for us is uncertain ; let us look for him everywhere. The premeditation of death is the premeditation of liberty ; he who has learned to die has unlearned to serve.

There is nothing of evil in life for him who rightly comprehends that the privation of life is no evil : to know how to die delivers us from all subjection and restraint. (I., 82-3.)

I am at all hours as well prepared as I am ever like to be, and death, whenever he shall come, can bring nothing along with him I did not expect long before. We should always, as near as we can, be booted and spurred and ready to go, and, above all things, take care at that time to have no business with any one but one's self. (I., 84.)

He that loves not his wife or his friend so well as to prolong his life for them, but will obstinately die, is too delicate and too effeminate : the soul must impose this upon itself when the utility of our friends so requires : we must sometimes lend ourselves to our friends, and when we would die for ourselves, must break that resolution for them. (II., 562.)

To him that said to Socrates, "The thirty tyrants have sentenced thee to death," he replied, "And nature them." What a ridiculous thing it is to trouble ourselves about taking the only step that is to deliver us from all trouble ! As our birth brought us the birth of all things, so in our death is the death of all things included. (I., 89.)

Nature compels us to it. "Go out of this world," says she, "as you entered into it ; the same pass you made from death to life, without passion or fear, the same, after the same manner, repeat from life to death. Your death is a part of the order of the universe, 'tis a part of the life of the world." (I., 90.)

I would always have a man to be doing, and, as much as in him lies, to extend and spin out the offices of life. Let death take me planting cabbages, indifferent to him, and still less of my garden's not being finished. (I., 86.)

In the judgment I make of another man's life, I always observe how he carried himself at his death ; and the principal concern I have for my own is that I may die well—that is, patiently and tranquilly. (I., 74.)

Cicero says "that to study philosophy is nothing but to prepare one's self to die." (I., 74.)

Cæsar, being asked what death he thought to be the most desired, made answer:—"The least premeditated, and the shortest." If Cæsar dared to say it, it is no cowardice in me to believe it. (II., 377.)

He who dies in battle with his sword in his hand, does not then think of death, he feels or considers it not; the ardour of the fight diverts his thoughts another way. (III., 62.)

If we have known how to live firmly and quietly, we shall know how to die so too. (III., 358.)

Happy is the death that leaves us no leisure to prepare things for all this foppery (death-bed scenes). (I., 96.)

They say that as life is not better for being long, so death is better for being not long. (III., 248.)

I had much rather die than live upon charity. (III., 145.)

If you know not how to die, never trouble yourself; nature will at the time fully and sufficiently instruct you: she will exactly do that business for you, take you no care. (III., 357.)

Health.—Health is a precious thing, and the only one, in truth, meriting that a man should lay out, not only his time, sweat, labour, and goods, but also his life itself to obtain it; forasmuch as without it life is wearisome and injurious to us: pleasure, wisdom, learning, and virtue, without it, wither away and vanish. (II. 582.)

The first addresses of a physician to his patient should be gracious, gay, and pleasing; never did any ill-looking, morose physician do anything to purpose. (III., 57.)

If your physician does not think it good for you to sleep, to drink wine, or to eat such and such meals, never trouble yourself; I will find you another that shall not be of his opinion; the diversity of medical arguments and opinions embraces all sorts of forms. (III., 408.)

Whatever I take against my liking does me harm; and

nothing hurts me that I eat with appetite and delight. (III., 406.)

To be subject to the stone, and subjected to abstain from eating oysters, are two evils instead of one; the disease torments us on the one side, and the remedy on the other. (III., 406.)

I believe nothing more certainly than this, that I cannot be hurt by the use of things to which I have been long accustomed. (III., 397-398.)

In the first place, experience makes me dread it (physic), for amongst all my acquaintance I see no people so soon sick, and so long before they are well, as those who take much physic; their very health is altered and corrupted by their frequent prescriptions. (II., 583.)

Whoever saw one physician approve of another's prescription without taking something away or adding something to it? (II., 589.)

No Roman till Pliny's time had ever vouchsafed to practise physic; that office was only performed by Greeks and foreigners, as 'tis now amongst us French by those who sputter Latin, for, as a very great physician says, we do not easily accept the medicine we understand, no more than we do the drugs we ourselves gather. (II., 591.)

If we were even assured that, when they make a mistake, that mistake of theirs would do us no harm, though it did us no good, it were a reasonable bargain to venture the making ourselves better without any danger of being made worse. (II., 592.)

Whilst they were afraid of stopping a dysentery, lest they should put the patient into a fever, they killed me a friend, who was worth more than the whole pack of them put together. (II., 595.)

Learning and Wisdom.—If we give the names of monster and miracle to everything our reason cannot comprehend, how many are continually presented before our eyes. (I., 217.)

"Tis a presumption of great danger and consequence, besides the absurd temerity it draws after it, to condemn what we do not comprehend. (I., 220.)

If we must study, let us study what is suitable to our present condition, that we may answer as he did, who, being asked to what end he studied in his decrepid age, "that I may go out better," said he, "and at greater ease." (II., 499.)

Though all that has arrived, by report, of our knowledge of times past should be true, and known by some one person, it would be less than nothing in comparison of what is unknown. (III., 163.)

Whoever should bundle up a lusty faggot of the fooleries of human wisdom, would produce wonders. (II., 289.)

How many have I seen in my time totally brutified by an immoderate thirst after knowledge. (I., 196.)

The world is nothing but babble; and I hardly ever yet saw that man who did not rather prate too much, than speak too little. (I., 203.)

I love and honour knowledge as much as they that have it; and in its true sense 'tis the most noble, and the greatest acquisition of men; but in such as I speak of (and the number of them is infinite), who build their fundamental sufficiency and value upon it, who appeal from their understanding to their memory, "cowering under foreign shelter," and who can do nothing but by book, I hate it, if I dare say so, worse than stupidity itself. (III., 189.)

In truth, knowledge is not so absolutely necessary as judgment; the last may make shift without the other, but the other never without this. (I., 160.)

They who do not rightly know themselves, may feed themselves with false approbations. (III., 80.)

I am afraid our knowledge is weak in all senses; we neither see far forward nor far backward, our understanding comprehends little, and lives but a little, while 'tis short both in extent of time and extent of matter. (III., 162.)

To learn that a man has said or done a foolish thing is nothing ; a man must learn that he is nothing but a fool, a much more ample and important instruction. (III., 389.)

The difficulties and obscurity are not discerned in any science but by those who are got into it ; for a certain degree of intelligence is required to be able to know that a man knows not. (III., 390.)

Wisdom is a solid and entire building, of which every piece keeps its place and bears its mark. (III., 392.)

A learned man is not learned in all things ; but a sufficient man is sufficient throughout, even to ignorance itself. (III., 24.)

"God is better known by not knowing," says St. Augustine ; and Tacitus says : "It is more holy and reverend to believe the works of God than to know them." Plato thinks there is something of impiety in inquiring too curiously into God, the world, and the first causes of things. "To find out the parent of the world is very hard ; and when found out, to reveal him to the vulgar is sin," says Cicero. We pronounce indeed the words 'power,' 'truth,' 'justice,' which are words that signify some great thing ; but that thing we neither see nor conceive. (II., 222.)

The most manifest sign of wisdom is a continued cheerfulness ; her state is like that of things in the regions above the moon, always clear and serene. (I., 192.)

The wisest man that ever was, being asked what he knew, made answer : "I know this, that I know nothing." By which he verified what has been said, that the greatest part of what we know is the least of what we do not know ; that is to say, that even what we think we know, is but a piece, and a very little one, of our ignorance. "We know things in dreams," says Plato, and are ignorant of them in reality. (II., 224.)

Have you known how to regulate your conduct ? You have done a great deal more than he who has composed books. (III., 438.)

Have you known how to meditate, and manage your life ? You have performed the greatest work of all. (III., 438.)

The great and glorious masterpiece of man is to know how to live to purpose; all other things—to reign, to lay up treasure, to build—are, at most, but little appendices and props. (III., 438.)

The reason that men do not doubt of so few things is that they never examine common impressions, they do not dig to the root, where the faults and weakness lie; they only debate about the branches; they do not ask whether such and such a thing be true, but if it has been so and so understood; it is not required whether Galen said anything to purpose, but whether he said this or that. (II., 280.)

Truly there are few souls so regular, firm, and well descended that are to be trusted with their own conduct, and that can, with moderation and without temerity, sail in the liberty of their own judgments, beyond the common and received opinions; 'tis more expedient to put them under pupilage. (II., 309.)

Zeno used to say that he had two sorts of disciples, one that he called *philologous*, curious to learn things, and these were his favourites; the other *logophilous*, that cared for nothing but words. (I., 209.)

There are some so ridiculous as to go a mile out of their way to hook in a fine word. (I., 207.)

The good fellow of Greece was wont to say that children were amused with toys, and men with words. (II., 454.)

There are men who are learning to speak at a time when they should learn to be silent for ever. A man may always study, but he must not always go to school. What a contemptible thing is an old Abecedarian! (II., 499.)

Plutarch says that 'Greek' and 'Scholar' were terms of reproach and contempt amongst the Romans. With the better experience of age, I find they had very great reason, and that "the greatest clerks are not the wisest men." (I., 150.)

I hate men who jabber about philosophy, but do nothing. (I., 152.)

Bees cull their several sweets from this flower and that

blossom, here and there where they find them, but themselves afterwards make the honey, which is all and purely their own, and no more thyme and marjoram; so the several fragments he—the true scholar—borrows from others, he will transform and shuffle together to compile a work that shall be absolutely his own; that is to say, his judgment, his instruction, labour, and study, tend to nothing else but to form that. He is not obliged to discover whence he got the materials that have assisted him, but only to produce what he has himself done with them. (I., 177.)

Demetrius, the grammarian, finding in the temple of Delphos a knot of philosophers set chatting together, said to them, "Either I am much deceived, or by your cheerful and pleasant countenances you are engaged in no very deep discourse." To which one of them, Heracleon the Megarean, replied: "Tis for such as are puzzled about inquiring whether the future tense of the verb $\beta\alpha\lambda\lambda\omega$ be spelt with a double λ , or that hunt after the derivation of the comparatives $\chiεῖρων$ and $\betaέλτιον$, and the superlatives $\chiεῖριστον$ and $\βέλτιστον$, to knit their brows whilst discoursing of their science; but as to philosophical discourses, they always divert and cheer up those that entertain them, and never deject them or make them sad." (I., 191.)

Children and their Education.—It is no hard matter to get children; but after they are born, then begins the trouble, solicitude, and care, rightly to train, principle, and bring them up. (I., 172.)

But, in truth, all I understand as to that particular is only this, that the greatest and most important difficulty of human science is the education of children. (I., 172.)

Pain, pleasure, love, and hatred are the first things that a child is sensible of: if, when reason comes, they apply it to themselves, that is virtue. (III., 443.)

Some, being of opinion that it troubles and disturbs the

brains of children suddenly to wake them in the morning, and to snatch them violently and over-hastily from sleep (wherein they are much more profoundly involved than we), he (my father) caused me to be awakened by the sound of some musical instrument, and was never unprovided of a musician for that purpose. (I., 211, 212.)

'Tis not a soul, 'tis not a body that we are training up, but a man, and we ought not to divide him. (I., 198.)

The plays of children are not performed in play, but are to be judged in them as their most serious actions; there is no game so small wherein, from my own bosom, naturally and without study or endeavour, I have not an extreme aversion for deceit. (I., 116.)

Plato reprehending a boy for playing at nuts, "Thou reprovest me," says the boy, "for a very little thing." "Custom," replied Plato, "is no little thing." (I., 115.)

There is nothing that ought so much to be recommended to youth as activity and vigilance: our life is nothing but movement. (III., 420.)

Whoever will breed a boy to be good for anything when he comes to be a man, must by no means spare him when young, and must very often transgress the rules of physic.

"Let him move in the open air, and be ever in movement about something." It is not enough to fortify his soul; you are also to make his sinews strong; for the soul will be oppressed if not assisted by the members, and would have too hard a task to discharge two offices alone. (I., 179.)

One asking Agesilaus what he thought most proper for boys to learn, "What they ought to do when they come to be men," said he. It is no wonder if such an institution produced so admirable effects. (I., 165.)

When Agesilaus courted Xenophon to send his child to Sparta to be bred, "It is not," said he, "there to learn logic or rhetoric, but to be instructed in the noblest of all sciences, namely, the science to obey and to command." (I., 166.)

I would also have his friends solicitous to find him out a tutor who has rather a well-made than a well-filled head ; seeking, indeed, both the one and the other, but rather of the two to prefer manners and judgment to mere learning, and that this man should exercise his charge after a new method. (I., 174.)

Let him examine every man's talent ; a peasant, a brick-layer, a passenger ; one may learn something from every one of these in their several capacities. (I., 183.)

In this conversing with men I mean also, and principally, those who only live in the records of history ; he shall, by reading those books, converse with the great and heroic souls of the best ages. (I., 184.)

Children should carefully be instructed to abhor vices for their own contexture ; and the natural deformity of those vices ought so to be represented to them, that they may not only avoid them in their actions, but especially so to abominate them in their hearts, that the very thought should be hateful to them, with what mask soever they may be disguised. (I., 116.)

After having taught him what will make him more wise and good, you may then entertain him with the elements of logic, physics, geometry, rhetoric, and the science which he shall then himself most incline to ; his judgment being beforehand formed and fit to choose, he will quickly make his own. (I., 190.)

A very pretty way this, to tempt these tender and timorous souls to love their book, with a furious countenance and a rod in hand. (I., 199.)

Away with this violence ! away with this compulsion ! than which I certainly believe nothing more dulls and degenerates a well-descended nature. (I., 198.)

There is no passion that so much transports men from their right judgment as anger. No one would demur upon punishing a judge with death who should condemn a criminal on the account of his own choler ; why then should fathers and pedagogues be any more allowed to whip and chastise children in their anger ? 'Tis then no longer correction, but revenge. (II., 513.)

A mere bookish learning is a poor, paltry learning ; it may serve for ornament, but there is yet no foundation for any superstructure to be built upon it. (I., 178.)

'Tis a sign of crudity and indigestion to disgorge what we eat in the same condition it was swallowed. (I., 176.)

Who follows another follows nothing, finds nothing, nay, is inquisitive after nothing. (I., 177.)

No doubt but Greek and Latin are very great ornaments, and of very great use, but we buy them too dear. (I., 209.)

But what will become of our young gentleman, if he be attacked with the sophistic subtlety of some syllogism? "A Westphalia ham makes a man drink ; drink quenches thirst ; therefore a Westphalia ham quenches thirst." Why, let him laugh at it, it will be more discretion to do so than to go about to answer it ; or let him borrow this pleasant evasion from Aristippus: "Why should I trouble myself to untie that which, bound as it is, gives me so much trouble?" (I., 206.)

I am of Plutarch's mind, that Aristotle did not so much trouble his great disciple with the knack of forming syllogisms, or with the elements of geometry, as with infusing into him good precepts concerning valour, prowess, magnanimity, temperance, and the contempt of fear, and with this ammunition, sent him, whilst yet a boy, with no more than thirty thousand foot, four thousand horse, and but forty-two thousand crowns, to subjugate the empire of the whole earth. (I., 195.)

Cicero said, that though he should live two men's ages, he should never find leisure to study the lyric poets ; and I find these sophisters yet more deplorably unprofitable. (I., 195.)

I hate our people who can worse endure an ill-contrived robe than an ill-contrived mind, and take their measure by the leg a man makes, by his behaviour, and so much as the very fashion of his boots, what kind of a man he is. (I., 160.)

All other knowledge is hurtful to him who has not the science of goodness. (I., 162.)

I see no other remedy but that he (soulless youth) be bound

prentice in some good town to learn to make minced pies, though he were the son of a duke ; according to Plato's precept, that children are to be placed out and disposed of, not according to the wealth, qualities, or condition of the father, but according to the faculties and the capacity of their own souls. (I., 194.)

Government, &c.—Epicurus said of the laws, that the worst was so necessary for us that, without them, men would devour one another ; and Plato affirms that without laws we should live like beasts. (II., 308.)

I hate all sorts of tyranny, whether verbal or effectual. (III., 195.)

There is little less trouble in governing a private family than a whole kingdom. (I., 294.)

Princes give me a great deal if they take nothing from me, and do me good enough if they do me no harm ; that's all I ask from them. (III., 244.)

There is nothing so little to be expected or hoped for from this many-headed monster—a seditious rabble—in its fury, as humanity and good nature ; it is much more capable of reverence and fear. (I., 146.)

We owe subjection and obedience to all our kings, whether good or bad, alike, for that has respect unto their office ; but as to esteem and affection, these are only due to their virtue. . . . And such as, out of respect to some private obligation, unjustly espouse and vindicate the memory of a faulty prince, do private right at the expense of public justice. (I., 13.)

Royal virtue seems most to consist in justice ; and of all the parts of justice that best denotes a king which accompanies liberality, for this they have particularly reserved to be performed by themselves, whereas all other sorts of justice they remit to the administration of others. (III., 157.)

'Tis marvellous to see how solicitous Plato is in his *Laws* concerning the gaiety and diversion of the youth of his city,

and how much and often he enlarges upon their races, sports, songs, leaps, and dances, of which he says that antiquity has given the ordering and patronage particularly to the gods themselves, to Apollo, Minerva, and the Muses. (I., 199.)

That which I myself adore in kings is the crowd of their adorers; all reverence and submission are due to them, except that of the understanding: my reason is not obliged to bow and bend; my knees are. (III., 200.)

There is nothing that so poisons princes as flattery, nor anything whereby wicked men more easily obtain credit and favour with them; nor panderism so apt and so usually made use of to corrupt the chastity of women, as to wheedle and entertain them with their own praises. (II., 391.)

There is none of us who would not be worse than kings if so continually corrupted as they are with that sort of vermin—flatterers. (III., 394.)

A civil war has this with it worse than other wars have, to make us stand sentinels in our own houses. 'Tis miserable to protect one's life by doors and walls, and to be scarcely safe in one's own house. 'Tis a grievous extremity for a man to be jostled even in his own house and domestic repose. (III., 248.)

Other wars are bent against strangers, this against itself, destroying itself with its own poison. It is of so malignant and ruinous a nature that it ruins itself with the rest, and with its own rage mangles and tears itself to pieces. We more often see it dissolve of itself than through scarcity of any necessary thing, or by force of the enemy. All discipline evades it; it comes to compose sedition, and is itself full of it; would chastise disobedience, and itself is the example; and, employed for the defence of the laws, rebels against its own. What a condition are we in? Our physic makes us sick. (III., 343.)

Anger and hatred are beyond the duty of justice, and are passions only useful for those who do not keep themselves strictly to their duty by simple reason. (III., 5.)

A man may very well behave himself commodiously, and loyally, too, amongst those of the adverse party. (III., 7.)

The other way, of offering a man's self, and the utmost service he is able to do, both to one party and the other, has still less of prudence in it than conscience. (III., 7.)

One open way of speaking introduces another open way of speaking, and draws out discoveries, like wine and love. (III., 8.)

There is nothing that can so justly disgust a subject, and make him unwilling to expose himself to labour and danger for the service of his prince, as to see him, in the meantime, devoted to his ease and frivolous amusement, and to be solicitous of his own preservation, while neglecting that of his people. (II., 465.)

Carneades said that the sons of princes learned nothing right but to ride, by reason that in all their other exercises every one bends and yields to them; but a horse, that is neither a flatterer nor a courtier, throws the son of a king with no more ceremony than he would throw that of a porter. (III., 178.)

Let a man but observe who are of greatest authority in cities, and who best do their own business, we shall find that they are commonly men of the least parts. (III., 199.)

I find that the places of greatest honour are commonly seized upon by men that have least in them, and that the greatest fortunes are seldom accompanied with the ablest parts. (I., 183.)

Dignities and offices are of necessity conferred more by fortune than upon the account of merit, and we are often to blame to condemn kings when these are misplaced; on the contrary, 'tis a wonder they should have so good luck where there is so little skill. (III., 197.)

But some of them, seeing the reins of government in the hands of incapable men, have avoided all management of political affairs; and he who demanded of Crates how long it was necessary to philosophise, received this answer: "Till our

armies are no more commanded by fools." Heraclitus resigned the royalty to his brother; and to the Ephesians, who reproached him that he spent his time in playing with children before the temple: "Is it not better," said he, "to do so, than to sit at the helm of affairs in your company?" (I., 153.)

One may regret better times, but cannot fly from the present; we may wish for other magistrates, but we must, notwithstanding, obey those we have; and peradventure 'tis more laudable to obey the bad than the good. (III., 281.)

Princes do wisely to publish the informations they receive of all the practices against their lives, to possess men with an opinion they have so good intelligence that nothing can be plotted against them but they have present notice of it. (I., 148.)

I do not condemn a magistrate who sleeps, provided that the people under his charge sleep as well as he; the laws in that case sleep too. For my part, I commend a gliding, staid, and silent life. (III., 318.)

The best managers are those who can worst give account how they are so; while the greatest talkers, for the most part, do nothing to purpose. (II., 464.)

The republics that have maintained themselves in a regular and well-modelled government, such as those of Lacedæmon and Crete, had orators in no very great esteem. Aristo wisely defined rhetoric to be "a science to persuade the people"; Socrates and Plato, "an art to flatter and to deceive." (I., 405.)

In those republics where the vulgar or the ignorant, or both together, have been all powerful and able to give the law, as in those of Athens, Rhodes, and Rome, and where the public affairs have been in a continual tempest of commotion, to such places have the orators always repaired. (I., 406.)

To obey more upon the account of understanding than of subjection, is to corrupt the office of command. (I., 65.)

'Tis by the mediation of custom that every one is content with the place where he is planted by nature; and the High-

landers of Scotland no more pant after Tourraine than the Scythians after Thessaly. (I., 125.)

It is the rule of rules, the general law of laws, that everyone observes those of the place wherein he lives. (I., 129.)

Laws derive their authority from possession and use: 'tis dangerous to trace them back to their beginning; they grow great and ennoble themselves, like our rivers, by running; follow them upward to their source, 'tis but a little spring, scarce discernible, that swells thus, and thus fortifies itself by growing old. (II., 343.)

By the law of arms, he shall be degraded from all nobility and honour who puts up with an affront; and by the civil law, he who vindicates his reputation by revenge incurs a capital punishment. He who applies himself to the law for a reparation of an offence done to his honour, disgraces himself; and he who does not, is censured and punished by the law. (I., 128.)

The surest way, in my opinion, did no other consideration invite us to it, is to pitch upon that—line of conduct—wherein is the greatest appearance of honesty and justice; and not being certain of the shortest, to keep the straightest and most direct way. (I., 143.)

In last necessities, where there is no other remedy, it would peradventure be more discreetly done to stoop and yield a little to receive the blow, than by opposing without possibility of doing good, to give occasion to violence to trample all under foot; and better to make the laws do what they can, when they cannot do what they would. (I., 135.)

There is nothing more subject to perpetual agitation than the laws. Since the time that I was born, I have known those of the English, our neighbours, three or four times changed, not only in matters of civil regimen, which is that wherein constancy may be dispensed with, but in the most important subject that can be, namely, religion. (II., 337.)

I am not much pleased with his opinion who thought by the multitude of laws to curb the authority of judges, in cut-

ting out for them their several parcels ; he was not aware that there is as much liberty and latitude in the interpretation of laws as in their form. (III., 376.)

What have our legislators gained by culling out a hundred thousand particular cases, and by applying to these a hundred thousand laws ? (III., 377.)

Do but consider the form of this justice that governs us ; 'tis a true testimony of human weakness, so full is it of error and contradiction. (III., 383.)

It is a very great doubt whether any so manifest benefit can accrue from the alteration of a law received, let it be what it will, as there is danger and inconvenience in altering it ; forasmuch as government is a structure composed of divers parts and members joined and united together, with so strict connection, that it is impossible to stir so much as one brick or stone but the whole body will be sensible of it. (I., 129.)

For my own part, I have a great aversion for novelty, what face or what pretence soever it may carry along with it, and have reason, having been an eyewitness of the great evils it has produced. (I., 130.)

To forbid us anything is to make us have a mind to it. (II., 385.)

That which kept the marriages at Rome so long in honour inviolate, was the liberty everyone, who so desired, had to break them ; they kept their wives the better, because they might part with them if they would ; and in the full liberty of divorce, five hundred years and more passed away before any one made use on't. (II., 387.)

Our manners are infinitely corrupt, and wonderfully incline to the worse ; of our laws and customs there are many that are barbarous and monstrous : nevertheless, by reason of the difficulty of reformation, and the danger of stirring things, if I could put something under to stop the wheel and keep it where it is, I would do it with all my heart.

In my conceit, in public affairs, there is no government so

ill, provided it be ancient and has been constant, that is not better than change and alteration. (II., 440.)

All great mutations shake and disorder a state. (III., 231.)

There is hardly any suit so clear wherein opinions do not very much differ; what one court has determined, another determines quite contrary, and itself also contrary at another time. By this license, which is a marvellous blemish on the ceremonious authority and lustre of our justice, we see frequent examples of persons not abiding by decrees, but running from judge to judge, and court to court, to decide one and the same cause. (II., 342.)

Men there are who will condemn others to death for crimes that they themselves do not repute so much as faults. (III., 274.)

You give your counsel a simple brief of your cause; he returns you a dubious and uncertain answer: you feel that he is indifferent which side he takes. Have you fee'd him well that he may consider it the better? does he begin to be really concerned? and do you find him truly interested and zealous in your quarrel? His reason and learning will by degrees grow hot in your cause; a manifest and undoubted truth presents itself to his understanding; he discovers an altogether new light in your business, and does in good earnest believe and persuade himself that it is so. (II., 320.)

What can be more savage than to see a nation where, by lawful custom, the office of a judge is bought and sold, where judgments are paid for with ready money, and where justice may be legitimately denied to him that has not wherewithal to pay. (I., 128.)

How many innocent people have we known that have been punished, and this without the judge's fault, and how many that have not arrived at our knowledge? (III., 384.)

We do not correct the man we hang, we correct others by him. (III., 181.)

Religion.—Of all human and ancient opinions concerning religion, that seems to me the most likely and most excusable that recognised in God an incomprehensible power, the original and preserver of all things, all goodness, all perfection, receiving and taking in good part the honour and reverence that man paid unto Him, under what method, name, or ceremonies soever. (II., 241.)

“Men,” says St. Paul, “professing themselves to be wise, they became fools, and changed the glory of the incorruptible God into an image made like to corruptible man.” (II., 265.)

Of all the religions that St. Paul found in repute at Athens, that which they had dedicated to the Unknown God seemed to him the most to be excused. (II., 242.)

“I know, by myself,” says St. Bernard, “how incomprehensible God is, seeing I cannot comprehend the parts of my own being.” (II., 286.)

To have made gods of our own condition, of which we should know the imperfection, and to have attributed to them desire, anger, revenge, marriages, generation, alliances, love, and jealousy, our members and bones, our fevers and pleasures, our death and obsequies, this must needs proceed from a marvellous intoxication of human understanding. (II., 247.)

When we say that the infinity of ages, as well past as to come, are but one instant with God; that His goodness, wisdom, and power are the same with His essence, our mouths speak it, but our understandings apprehend it not. And yet such is our outrageous opinion of ourselves that we must make the divinity pass through our sieve; and from this proceed all the dreams and errors with which the world abounds, when we reduce and weigh in our balance a thing so far above our poise. (II., 264.)

This way of speaking in a Christian man has ever seemed to me very indiscreet and irreverent:—God cannot die; God cannot contradict himself; God cannot do this or that! I do not like to have the divine power so limited by the laws of men’s

mouths ; and the idea which presents itself to us in these propositions ought to be more religiously and reverently expressed. (II., 261.)

Man is certainly stark mad ; he cannot make a flea, and yet he will be making gods by dozens. (II., 266.)

'Tis far from honouring Him who made us, to honour him whom we have made. (II., 266.)

'Tis pity that we should fool ourselves with our own fopperies and inventions. They fear what they themselves have invented, like children who are frightened with the face of their play-fellow that they themselves have smeared and smutted. (II., 266.)

'Tis Socrates' opinion, and mine too, that it is best judged of heaven not to judge of it at all. (II., 274.)

Chiron refused to be immortal when he was acquainted with the conditions under which he was to enjoy it, by the god of time itself and its duration, his father Saturn. Do but seriously consider how much more insupportable and painful an immortal life would be to man than what I have already given him. If you had not death, you would eternally curse me for having deprived you of it ; I have mixed a little bitterness with it, to the end that, seeing of what convenience it is, you might not too greedily and indiscreetly seek and embrace it : and that you might be so established in this moderation, as neither to nauseate life, nor have an antipathy for dying, which I have decreed you shall once do, I have tempered the one and the other betwixt pleasure and pain. (I., 95.)

Two things rendered this opinion—immortality—plausible : one, that without the immortality of souls there would be nothing whereon to ground the vain hopes of glory, which is a consideration of wonderful repute in the world ; the other, that it is a very profitable impression, as Plato says, that vices, though they escape the discovery and cognisance of human justice, are still within the reach of the divine, which will pursue them even after the death of the guilty. (II., 299.)

Upon what occasion soever we call upon God to accompany and assist us, it ought always to be done with the greatest reverence and devotion. (I., 428.)

I would that Christians always make use of the Lord's Prayer, if not alone, yet at least always. (I., 420.)

We pray only by custom, and for fashion's sake; or rather, we read or pronounce our prayers aloud, which is no better than an hypocritical show of devotion. (I., 421.)

I never forget, in the height of all my enjoyments, to make it my chiefest prayer to Almighty God, that He will please to render me content with myself and the condition wherein I am. (I., 301.)

See an old man who begs of God that He will maintain his health vigorous and entire; that is to say, that He restore him to youth. "Why, you blockhead, pray such childish prayers in vain?" Is it not folly? His condition is not capable of it. (III., 410.)

I am of St. Augustine's opinion, that "'tis better to lean towards doubt than assurance in things hard to prove and dangerous to believe." (III., 332.)

We need not trouble ourselves to seek out foreign miracles and difficulties; methinks amongst the things that we ordinarily see, there are such incomprehensible wonders as surpass all difficulties of miracles. (II., 578.)

I had given anything with my own eyes to see those two great marvels, the book of Joachim, the Calabrian abbot, which foretold all the future popes, their names and form; and that of the Emperor Leo, which prophesied all the emperors and patriarchs of Greece. (I., 51.)

The plague of man is the opinion of wisdom; and for this reason it is that ignorance is so recommended to us by our religion as proper to faith and obedience. (II., 206.)

How much more docile and easy to be governed, both in the laws of religion and civil polity, are simple and incurious minds, than those over-vigilant and pedagogueish wits that will still be prating of divine and human causes? (II., 232.)

A man would have much ado to make me believe that the sight of our crucifixes, that the picture of our Saviour's piteous passion, that the ornaments and ceremonious motions of our churches, that the voices accommodated to the devotion of our thoughts, and that emotion of the senses, do not warm the souls of the people with a religious passion of very advantageous effect. (II., 243.)

When the vines of my village are nipped with the frost, my parish priest presently concludes that the indignation of God is gone out against all the human race, and that the cannibals have already got the pip. Who is it that, seeing the havoc of these civil wars of ours, does not cry out that the machine of the world is near dissolution, and that the day of judgment is at hand, without considering that many worse things have been seen, and that, in the meantime, people are very merry in a thousand other parts of the earth for all this. (I., 186.)

'Tis enough for a Christian to believe that all things come from God, to receive them with acknowledgment of His divine and inscrutable wisdom, and also thankfully to accept and receive them, with what face soever they may present themselves. (I., 268.)

The Christian religion has all the marks of the utmost utility and justice; but none more manifest than the severe injunction it lays differently upon all to yield absolute obedience to the civil magistrate, and to maintain and defend the laws. (I., 132.)

As, indeed, we have no other level of truth and reason than the example and idea of the opinions and customs of the place wherein we live: there is always the perfect religion, there the perfect government, there the most exact and accomplished usage of all things. (I., 253.)

We are either wholly and absolutely to submit ourselves to the authority of our ecclesiastical polity, or totally throw off all obedience to it; 'tis not for us to determine what and how much obedience we owe to it. (I., 221.)

They make me hate things that are likely when they would impose them upon me as infallible. (III., 329.)

Because I hate superstition, I do not presently run into the contrary extreme of irreligion. (III., 88.)

No belief offends me, though never so contrary to my own; there is no so frivolous and extravagant fancy that does not seem to me suitable to the production of human wit. (III., 184.)

In a slippery and sliding place let us suspend our belief, for, as Euripides says: "The works of God in various ways perplex us." (II., 237.)

Between ourselves, I have ever observed super-celestial opinions and subterranean manners to be of singular accord. (III., 448.)

Mores and Morality.—A man must live by the world, and make his best of it, such as it is. (III., 304.)

There is not anything wherein the world is so various as in laws and customs; such a thing is abominable here, which elsewhere is in esteem—as in Lacedæmon, dexterity in stealing; marriages within degrees of consanguinity are capitally interdicted amongst us—they are elsewhere in honour. 'Tis said there are some nations where mothers marry their sons, fathers their daughters, and love is enhanced by the double tie. The murder of infants, the murder of fathers, community of wives, traffic in robberies, license in all sorts of voluptuousness, in short, there is nothing so extreme that is not allowed by the custom of some nation or other. (II., 339.)

Now all other creatures, being sufficiently furnished with all things necessary for the support of their being, it is not to be imagined that we only should be brought into the world in a defective and indigent condition, and in such a state as cannot subsist without external aid. Therefore it is that I believe, that as plants, trees, and animals, and all things that have life, are seen to be by nature sufficiently clothed and covered

to defend them from the injuries of weather, so were we : but, as those who by artificial light put out that of the day, so we, by borrowed forms and fashions, have destroyed our own. (I., 278.)

And besides, our most tender parts are always exposed to the air, as the eyes, mouth, nose, and ears ; and our country labourers, like our ancestors in former times, go with their breasts and bellies open. Had we been born with a necessity upon us of wearing petticoats and breeches, there is no doubt but nature would have fortified those parts she intended to be exposed to the fury of the seasons, with a thicker skin, as she has done the finger-ends and the soles of the feet. And why should this seem hard to believe ? (I., 279.)

I should willingly pardon our people for admitting no other pattern or rule of perfection than their own peculiar manners and customs : for 'tis a common vice, not of the vulgar only, but almost of all men, to walk in the beaten road their ancestors have trod before them. (I., 394.)

The laws of conscience, which we pretend to be derived from nature, proceed from custom ; everyone, having an inward veneration for the opinions and manners approved and received amongst his own people, cannot, without very great reluctance, depart from them, nor apply himself to them without applause. In times past, when those of Crete would curse anyone, they prayed the gods to engage him in some ill custom. But the principal effect of its power is so to seize and ensnare us, that it is hardly in us to disengage ourselves from its gripe, or so to come to ourselves as to consider of and to weigh the things it enjoins. To say the truth, by reason that we suck it in with our milk, and that the face of the world presents itself in this posture to our first sight, it seems as if we were born upon condition to follow on this track ; and the common fancies that we find it in repute everywhere about us, and infused into our minds with the seed of our fathers, appear to be the most universal and genuine : whence it comes to pass that whatever

is off the hinges of custom is commonly believed to be also off the hinges of reason ; how unreasonably, for the most part, God knows. (I., 124.)

Smiths, millers, pewterers, forgemen, and armourers, could never be able to live in the perpetual noise of their own trades did it strike their ears with the same violence that it does ours. (I., 115.)

My perfumed doublet gratifies my own smelling at first ; but after I have worn it three days together 'tis only pleasant to the bystanders. (I., 115.)

Plenty and indigence depend upon the opinion everyone has of them ; and riches, no more than glory or health, have other beauty or pleasure than he lends them by whom they are possessed. Everyone is well or ill at ease, according as he so finds himself ; not he whom the world believes, but he who believes himself to be so, is content ; and in this alone belief gives itself being and reality. (I., 340.)

The Pythagorians make *good* to be certain and finite, and *evil* infinite and uncertain. There are a thousand ways to miss the white ; there is only one to hit it. (I., 40.)

Almost all the opinions we have are taken on authority and trust, and 'tis not amiss ; we could not choose worse than by ourselves, in so weak an age. (III., 337.)

Great abuses in the world are begotten, or, to speak more boldly, all the abuses of the world are begotten by our being taught to be afraid of professing our ignorance, and that we are bound to accept all things we are not able to refute : we speak of all things by precepts and decisions. (III., 329.)

Whoever believes anything thinks it a work of charity to persuade another into the same opinion ; which the better to do, he will make no difficulty of adding as much of his own invention as he conceives necessary to his tale to encounter the resistance or want of conception he meets with in others. (III., 326.)

'Tis a misfortune to be at such a pass, that the best test of

truth is the multitude of believers in a crowd, where the number of fools so much exceed the wise—"As if anything were so common as ignorance." (III., 326.)

What I should not believe from one I should not believe from a hundred and one: and I do not judge of opinions by years. (III., 327.)

The particular error first makes the public error, and afterwards, in turn, the public error makes the particular one; and thus all the vast fabric goes forming and piling itself up from hand to hand, so that the remotest witness knows more about it than those who were nearest, and the last informed is better persuaded than the first. (III., 325.)

Friendship.—An ancient father says that "a dog we know, is better company than a man whose language we do not understand." (I., 40.)

Architas pleases me when he says "that it would be unpleasant even in heaven itself to wander in those great and divine celestial bodies without a companion." But yet, 'tis much better to be alone than in foolish and troublesome company. (III., 271.)

In friendship 'tis a general and universal fire, but temperate and equal, a constant established heat, all gentle and smooth, without poignancy or roughness. (I., 226.)

If a man should importune me to give a reason why I loved him, I find it could no otherwise be expressed than by making answer: because it was he, because it was I. There is beyond all that, I am able to say, I know not what inexplicable and fated power that brought on this union. We sought one another long before we met, and by the characters we heard of one another, which wrought upon our affections more than, in reason, mere reports should do; I think 'twas by some secret appointment of heaven. (I., 229.)

'Tis a rare fortune, but of inestimable solace, to have a worthy man, one of a sound judgment, and of manners conform-

able to our own, who takes a delight to bear us company. (III., 270.)

Oh ! what a thing is a true friend ! How true is that old saying :—The use of a friend is more pleasing and necessary than the elements of water and fire ! (III., 262.)

The men whose society and familiarity I covet are those they call sincere and able men ; and the image of these makes me dis-relish the rest. (III., 48.)

The conversation also of beautiful and well-bred women is for me a sweet commerce. (III., 49.)

In those other ordinary friendships you are to walk with bridle in your hand, with prudence and circumspection, for in them the knot is not so sure that a man may not half suspect it will slip. (I., 232.)

I envy those who can render themselves familiar with the meanest of their followers, and talk with them in their own way ; and dislike the advice of Plato, that men should always speak in a magisterial tone to their servants, whether men or women, without being sometimes facetious and familiar. (III., 44.)

But above all things, 'tis in my opinion egregiously to play the fool, to put on the grave airs of a man of lofty mind amongst those who are nothing of the sort : ever to speak in print, "*favell'ar in punta di forchetta*" (to talk with the point of the fork). (III., 45.)

Marriage.—Marriage is a solemn and religious tie, and therefore the pleasure we extract from it should be a sober and serious delight, and mixed with a certain kind of gravity ; it should be a sort of discreet and conscientious pleasure. (I., 244.)

The true touch and test of a happy marriage have respect to the time of the companionship, if it has been constantly gentle, loyal, and agreeable. (II., 553.)

Such as have had to do with testy and obstinate women,

may have experimented into what a rage it puts them, to oppose silence and coldness to their fury, and that a man disdains to nourish their anger. (II., 517.)

Let men say what they will, according to their experience ; I have learned I require in married women the economical virtue above all other virtues. (III., 253.)

The most useful and honourable knowledge and employment for the mother of a family is the science of good housewifery. (III., 253.)

'Tis ridiculous and unjust that the laziness of our wives should be maintained with our sweat and labour. (III., 253.)

Ugliness of a confessed antiquity is to me less old and less ugly than another that is polished and plastered up. Shall I speak it without the danger of having my throat cut ?—Love, in my opinion, is not properly and naturally in its season but in the age next to childhood. (III., 146.)

It is not modesty so much as cunning and prudence that makes our ladies so circumspect in refusing us admittance to their closets before they are painted and tricked up for public view. (II., 201.)

Few men have made a wife of a mistress who have not repented it. (III., 89.)

If there be any honour in lamenting a husband, it only appertains to those who smiled upon them whilst they had them ; let those who wept during their lives laugh at their deaths, as well outwardly as within. (II., 554.)

Lying.—In plain truth, lying is an accursed vice. We are not men, nor have other tie upon one another, but by our word. If we did but discover the horror and gravity of it, we should pursue it with fire and sword, and more justly than other crimes. (I., 40.)

It is not without good reason said, that "He who has not a good memory should never take upon him the trade of lying." I know very well that the grammarians distinguish betwixt an

untruth and a *lie*, and say that to tell an *untruth* is to tell a thing that is false, but that we ourselves believe to be true; and that the definition of the expression *to lie*, in Latin, from which our French is taken, is to tell a thing which we know in our conscience to be untrue; and it is of this last sort of liars only that I now speak. (I., 38.)

Lying is a base vice; a vice that one of the ancients portrays in the most odious colours when he says, "It is too manifest a contempt of God, and withal a fear of men." (II., 454.)

I love stout expressions amongst gentlemen, and to have them speak as they think. (III., 185.)

When any one contradicts me, he raises my attention, not my anger: I advance towards him who controverts, who instructs me; the cause of truth ought to be common cause both of the one and the other. What will the angry man answer? Passion has already confounded his judgment; agitation has usurped the place of reason. (III., 185.)

BRAHE, TYCHO.—1546-1601.*

Tycho Brahe was born at Kundstrup, in Scania, on the 14th December, 1546, three years after the death of Copernicus. When a student at Copenhagen, the great solar eclipse of the 21st August, 1560, arrested his attention, and having found that all its phases had been accurately predicted, he resolved to acquire the knowledge of a science so infallible in its results. Though destined for the profession of the law, he refused to enter upon its study; and when urged to it by the entreaties and reproaches of his friends, he escaped from their importunities by travelling into Germany. During his visit to Augsburg he resided at the house of Peter Hainzell, the burgomaster, whom he inspired with such a love of astronomy, that he, Hainzell, erected an excellent observatory at his own expense, and there enabled his youthful instructor to commence that splendid career of observation which has placed him in the first rank of practical astronomers.

On his return to Copenhagen in 1570, he was welcomed by the king and the nobility as an honour to the nation, and his maternal uncle at Herritzvold, near his native place, offered him a retreat from the gaieties of the capital, and every accommodation for pursuing his astronomical studies. Love and alchemy, however, distracted his thoughts; but he found the peasant girl, whom he fancied, easier of attainment than the philosopher's stone. His noble relations were deeply offended with the marriage, and it required all the influence of the king to allay the quarrel which it occasioned. In 1572 and in 1573, he had observed the remarkable star in Cassiopeia which rivalled Venus in her greatest brightness, and which, after being the wonder of astronomers for sixteen months, disappeared in March, 1574; but he refused, for a long time, to publish his

* This sketch is taken, practically verbatim, from the "Memoirs of the life, writings, and discoveries of Sir Isaac Newton," by Sir David Brewster. K. H. Hamilton Adams & Co. Vol. I., page 258.

observations upon it, lest he should cast a stain upon his nobility!

Fickle in purpose, and discontented with Denmark, Tycho set out in search of a more suitable residence; but when the king heard of his plans, he resolved to detain him by acts of kindness and liberality. He was therefore presented to the canonry of Roschild, with an annual income of 2,000 crowns, and an additional pension of 1,000; and the island of Huen was offered to him as the site of an observatory, to be furnished with instruments of his own choice. The generous offer was instantly accepted. The celebrated observatory of Uraniburg, the City of the Heavens, was completed at the expense of £20,000, and from its hallowed towers Tycho continued for 21 years to enrich astronomy with the most valuable observations. From every kingdom in Europe admiring disciples repaired to this sanctuary of the sciences, to acquire a knowledge of the heavens, and kings and princes felt themselves honoured as the guests of the great astronomer.

Among the princes who visited Uraniburg, we are proud to enumerate James VI. of Scotland. In 1590, during his visit to Denmark to celebrate his marriage with the Princess Anne, he spent eight days with Tycho, accompanied with his counselors and a large suite of nobility. He studied the construction and use of the astronomical instruments; he inspected the casts and pictures in the museum, and when he found among them the portrait of his own distinguished preceptor, George Buchanan, he could not refrain from the strongest expressions of delight. Upon quitting Uraniburg, James not only presented Tycho with a magnificent donation, but afterwards gave him his royal license to publish his works in England.

The equanimity of Tycho was not disturbed by these marks of respect and admiration; but while they animated his zeal and stimulated his labours, they were destined to be the instrument of his ruin. By the death of Frederick II. in 1588, Tycho lost his most valued friend; and though his son and

successor, Christian IV., visited Uraniburg, and seemed to take an interest in astronomy, his wishes to foster it, if he did cherish them, must have been overruled by the influence of his counsellors. The parasites of royalty found themselves eclipsed by the brightness of Tycho's reputation. They envied the munificent provision which Frederick had made for him ; and, instigated by a physician who was jealous of his reputation as a successful practitioner in medicine, they succeeded in exciting against Tycho the hostility of the court. Walchendorf, the president of the council, was the tool of his enemies, and on the ground of an exhausted treasury, and the inutility of the studies of Tycho, he was deprived of his canonry, his pension, and his Norwegian estate.

Thus, stripped of his income, and degraded from his office, Tycho, with his wife and family, sought for shelter in a foreign land. His friend, Count Henry Rantzau, offered him the hospitality of his castle of Wandesberg, near Hamburg, and, having embarked his family and his instruments on board a small vessel, the exiled patriarch left his ungrateful country never to return. In the castle of Wandesberg he enjoyed the kindness and conversation of his accomplished host, by whom he was introduced to the emperor Rodolph, who, to a love of science, added a passion for alchemy and astrology. The reputation of Tycho having already reached the imperial ear, the recommendation of Rantzau was hardly necessary to insure him his warmest friendship. On the invitation of the emperor he repaired in 1599 to Prague, where he met with the kindest reception. A pension of 3,000 crowns was immediately settled upon him, and a commodious observatory erected for his use. Here he renewed with delight his interrupted labours, and rejoiced in the resting-place which he had so unexpectedly found for his approaching infirmities. These prospects of returning prosperity were enhanced by the pleasure of receiving into his house two such pupils as Kepler and Longomontanus ; but the fallacy of human anticipation was here, as in so many

other cases, strikingly displayed. His toils and his disappointment had made severe inroads upon his constitution. Though surrounded with affectionate friends and admiring disciples, he was still an exile in a foreign land. Though his country had been base in its ingratitude, it was yet the land which he loved—the scene of his earliest affections—the theatre of his scientific glory; these feelings constantly preyed upon his mind, and his unsettled spirit was ever hovering among his native mountains. In this condition he was attacked with a disease of the most painful kind, and though the paroxysms of its agonies had lengthened intermissions, yet he saw that death was approaching him. He implored his pupils to persevere in their scientific labours. He conversed with Kepler on some of the profoundest questions in astronomy, and with these secular occupations he mingled frequent acts of piety and devotion. In this happy frame of mind he expired without pain on the 24th October, 1601, at the age of 55, the unquestionable victim of the Councils of Christian IV.

Among the great discoveries of Tycho, his improvements of the lunar theory are perhaps the most important. He discovered the inequality called the Variation, amounting to 37 minutes, and depending on the distance of the moon from the sun. He discovered also the annual inequality of the moon depending on the position of the earth in its orbit, and affecting also the place of her apogee and node. He determined likewise the greatest and least inclination of the moon's orbit, and he represented this variation by the motion of the pole of the orbit in a small circle. Tycho had the merit, too, of being the first to correct, by the refraction of the atmosphere, the apparent places of the heavenly bodies; but what is very unaccountable, he made the refraction, which he found to be 34° in the horizon, to vanish at 45° , and he maintained that the light of the moon and stars was refracted differently by the atmosphere! By his observations on the comet of 1577 he proved that it was three times as distant as the moon, and

that since these bodies move in all directions, the doctrine of solid orbs could not be true. By means of large and accurately divided instruments, some of which were altitude and azimuth ones, having their divided circles six and nine feet in diameter, and others mural quadrants, sextants, and armillary spheres, he made a vast collection of observations, which led Kepler to the discovery of his celebrated laws, and formed the basis of the Rudolphine Tables. But the most laborious of his undertakings was his catalogue of 777 stars, for the epoch of 1600 A.D., a catalogue afterwards enlarged by Kepler from Tycho's observations, and published in 1627. The skill of Tycho in observing phenomena surpassed his genius for discovering their cause, and it was perhaps from his veneration for the scriptures, rather than from the vanity of giving his name to a new system, that he rejected the Copernican hypothesis. In the system which bears his name the earth is stationary in the centre of the universe, while the sun, with all the other planets and comets revolving around him, performs his daily revolution about the earth.

BACON, FRANCIS, LORD VERULAM.—1561-1626.*

Francis Bacon was born in London in 1561. In his thirteenth year he entered the university of Cambridge, where, as we are told, he made astonishing progress in all the sciences there taught, and, before the completion of his sixteenth year, wrote against the Aristotelian philosophy, which, in his estimation, was rather calculated to perpetuate disputes than to enlighten the mind. From Cambridge he went to Paris, in the suite of Sir Amos Paulet, and was by him sent to England on an important mission, which he discharged to the satisfaction of Elizabeth, and afterwards returned to France, visiting several of its provinces, and making a close study of its manners and laws, as is proved by his book—entitled, “Of the State of Europe”—published when he was only nineteen years of age. On his return to England, which was hastened by the death of his father, he devoted himself to the study of the law, and that with so much success as to gain for him the appointment of counsel extraordinary to the queen, in 1588, when he was only 27. In 1593, he entered parliament as member for the county of Middlesex. In the quarrel between Sir Robert Cecil and the Earl of Essex, both of whom were his patrons, he sided with Cecil, though under a heavy obligation to Essex, who had made him a present of an estate; and when Essex fell into disgrace, not merely did he abandon him, but, without being obliged to do so, took part against him on his trial, in 1600, to the disgust of the public and the displeasure of the queen. Bacon remained at court, the object of hatred to one party, and of jealousy to the other. The servility which he manifested towards the end of Elizabeth’s reign, and which became

* The matter of this sketch was derived from the “Of the proficience and advancement of learning, by Francis, Lord Verulam, edited by B. Montagu, Esquire,” 1840; “The Novum Organum,” or true suggestions for the interpretation of Nature, by Francis, Lord Verulam, 1850, London, William Pickering; and from Encyclopædias.

simply contemptible in the reign of James I., has been attempted to be excused by some on the ground of his poverty. He was twice arrested for debt. In 1603, James conferred on him the order of knighthood. He was commissioned to investigate and report on alleged oppressions committed by the royal purveyors in the king's name, and performed his task so well as not merely to satisfy the king and the Parliament, but to secure to him from the Commons a public vote of thanks. He was made King's Counsel, with a pension of £40 per annum, which was soon followed by another of £60. Fortune now smiled upon him. He contracted an advantageous marriage; in 1617 he was made Lord Keeper of the Seals; in 1619, Lord High Chancellor of England and Baron of Verulam; and in 1620, Viscount St. Albans.

In 1621, he was accused before the House of Lords of having received money for grants of offices and privileges under the Great Seal. To avoid the mortification of a trial, he confessed his crime, begging that his punishment might be limited to his deprivation of the high office he had dishonoured. Notwithstanding the king's intercession on his behalf, the Lords sentenced him to pay a fine of £40,000, and to be imprisoned in the Tower during the pleasure of the king. He was also declared for ever incapable of place or employment, and was forbidden to sit in Parliament or to appear within the verge of the Court. His sentence, however, was not rigorously executed; he was soon released from the Tower, and the rest of his punishment was by degrees remitted.

In his last will and testament, Bacon said: "My name and memory I bequeath to foreign nations and to my own countrymen, after some time be passed over." By that he at the same time admitted that he had inflicted a wound upon his native race that time alone could heal, and expressed consciousness of the fact that he had also conferred on it a boon for which posterity must, in gratitude for what he had done in the path of virtue, forgive, if it could not forget, what he had done in

a corrupt age, by yielding to the temptation to barter honour for money.

It would be more easy for some to pardon his admitted wrong than the servility in his dedication "Of the Proficiency and Advancement of Learning" to James I. The fact that, by some almost inexplicable infatuation, the bishops and judges of the period vied with each other in sycophancy, is possibly his best, though a somewhat beggarly excuse. He had good reason to dedicate his book to the king, for he owed him much; but what can justify such language as this: "Your Majesty's manner of speech is indeed prince-like, flowing as from a fountain, and yet streaming and branching itself into nature's order, full of facility and felicity, imitating none, and inimitable by any." . . . "I am well assured that this which I say is no amplification at all, but a positive and measured truth; which is, that there hath not been since Christ's time any king or temporal monarch which has been so learned in all literature and erudition, divine and human." Bacon died on the 9th April, 1626.

We turn with pleasure and profound admiration to Bacon as a student and a philosophical writer. That he must have toiled incessantly is obvious from the bulk of his productions; that he must have had a most comprehensive brain is apparent from the diversity of his studies; that he must have had an independent and logical mind of no ordinary calibre is shown by his repudiation of existing systems and the construction of a new one.

In his *Sylva Sylvarum* he treated of natural history; he wrote several treatises on medicine; he wrote aphorisms on law; in his essays he dealt with morals; in his history of Henry VII. he proved himself a no mean historian; in his wisdom of the ancients he shows his familiarity with the Greek and Roman classics; but it is as the author of "The Proficiency and Advancement of Learning" and "The *Novum Organum*" that I propose to introduce him to the reader. My aim is to

give, in as brief a space as possible, some idea of the construction and contents of those two immortal works.

OF THE PROFICIENCE AND ADVANCEMENT OF LEARNING.

THE FIRST BOOK.

To clear the way, as he expresses it, Bacon points out and deals with the various matters that in his opinion had brought learning into discredit, viz. :—(1) The theory that the thirst for knowledge is discountenanced by the bible. He concludes by saying, "Therefore let no man, upon a weak conceit of sobriety, or an ill-applied moderation, think or maintain that a man can search too far, or be too well studied in the book of God's word, or in the book of God's works, &c." (2) That learning unfits men to be good soldiers or statesmen. He quotes in refutation of that fallacy, Cato, Virgil, Socrates, Alexander the Great, Julius Cæsar, &c. (3) That learning disposes men to leisure and makes them slothful.

Having said that of all men the learned are the most indefatigable, he instances and discusses the effect of wealth on the one hand and poverty on the other. It is to be observed that he uses the word "pedant" as synonymous with "learned." It is interesting to note what he says about the Jesuits, as evidence that at that date they had not lost the spirit of their great founder. He says "which excellent part of ancient discipline (education), by which, I take it, he means 'learning,' hath been in some sort revived of late times by the colleges of the Jesuits, &c." He discusses the effect of learning on manners, and the actual or alleged faults of the learned. He says that there are chiefly three varieties in studies, i.e., fantastical learning, contentious learning, and delicate learning. He ascribes to Martin Luther the revival of the study of the ancient authors, both in divinity and in humanity; the almost deification of Cicero and Demosthenes to Car and Ascham. "Then," says he, "did Erasmus take occasion to make the

scoffing echo, '*Decem annos consumpsi in legendo Cicerone,*' and the echo answered in Greek '*Ove Asine.*' Then grew the learning of the schoolmen to be utterly despised as barbarous.

(I) "Here, therefore, is the first distemper of learning—when men study words, and not matter."

(II) "Vain matter is worse than vain words," he says, and divides it into two sorts—when the subject is fruitless speculation or controversy, and when the manner of handling knowledge is defective. He says, "The strength of all sciences is as the strength of the old man's fagot, in the band," *i.e.*, he condemns the theory of the specialist as narrow and incomprehensive. Parts are but fractions of one great whole.

(III) Of the three diseases of learning, he declares deceit or untruth to be the worst. He says, "that he that will easily believe rumours, will as easily augment rumours, and add somewhat to them of his own." He instances the narration of miracles wrought by martyrs, &c., and says, "They work to the great scandal and detriment of religion." He points out that the overmuch credit that has been given to authors in science, by making them dictators instead of advisers, has done infinite damage. Having disposed of these three diseases of learning, he refers to some evils which he styles "peccant humours," *i.e.*, affecting extremes, antiquity, or novelty. Undue reverence for authority, which hinders personal investigation, looking at matters through the medium of pet theories, immature conclusions, undue positivism; but the chief of these humours, he says, is the mistaking the true end of knowledge, which he declares to be the glory of the Creator and the relief of man's estate.

He then proceeds to weigh the dignity of knowledge in the balance with other things. He says that as to the attributes and acts of God, our knowledge cannot be styled 'learning,' for all learning is knowledge acquired, and all knowledge of God is original, and therefore we must look for it by another name, that of wisdom or sapience, as the scriptures call it.

He refers to the biblical account of the creation. He passes from God to spirits, and from spirits to sensible and material forms. He alludes to God resting after his labour of creation, and says that the original employment of Adam in the garden was contemplation. To the fact of the fall he ascribes the existence of two estates of man—the 'contemplative,' and the 'active'—which he says were figured in the two persons of Abel and Cain, and assigns as the reason of the greater acceptability of Abel's sacrifice, the fact, that the contemplative character of the shepherd's occupation is the more noble.

From this and other suggestions, coupled with the contents of Bacon's "Wisdom of the Ancients," it may be assumed that he regarded much of the Old Testament as allegory.

He makes allusion to the confusion of tongues, and speaks of Moses as God's first pen. He says that the prefiguration of Christ is visible in the ceremonial law of Moses, and that if that excellent book of Job be revolved with diligence, it will be found pregnant and swelling with natural philosophy; that Solomon preferred wisdom and learning before all other terrene and temporal felicity; that our Saviour first showed his power to subdue ignorance by his conference with the priests and doctors of the law; and that the coming of the Holy Spirit was chiefly figured and expressed in the similitude and gift of tongues. He comments on the ignorance of the disciples, and contrasts it with the learning of St. Paul; refers to the learning of many of the ancient bishops and fathers of the church, and says that we are indebted to the Christian church for the preservation in the sacred lap and bosom thereof of the precious relics, even of heathen learning, during the inundations of the Scythians and the Saracens, and that when it had pleased God to call the Church of Rome to account, the Jesuits had quickened and strengthened the state of learning. He therefore concludes that learning tends to the glory of God, and the removal of unbelief and error; for our Saviour saith: "Ye err, not knowing the scriptures nor the power of God."

He says that what the Grecians call '*Apotheosis*,' and the Latins '*relatio inter dives*,' was the supreme honour which man could attribute unto man, and observes, that whereas founders, uniters of states, lawgivers, and the like, were honoured by the ancients with the titles of worthies or demi-gods, the inventors of new arts, endowments, and commodities towards man's life, were consecrated among the gods themselves.

He says that under learned princes and governors there have been ever the best times, and cites as illustrations the Roman emperors, from the death of Domitian until the reign of Commodus—Nerva, Trajan, Adrian, Antoninus Pius, Lucius Commodus Verus, and Marcus Aurelius Antoninus. As to our Queen Elizabeth, he says: "If Plutarch were now alive to write lives by parallels, it would trouble him, I think, to find for her a parallel amongst women." He then proceeds to show that the influence of learning is not confined to civil merit and moral virtue, but extends to martial virtue and prowess, and quotes Alexander the Great, the pupil of Aristotle, Julius Cæsar, and Xenophon, as instances, respecting each of whom he mentions several interesting facts.

He says that "There is no power on earth which setteth up a throne or chair of state in the spirits and souls of men, and in their cogitations, imaginations, opinions, and beliefs, but knowledge and learning"; and that "the pleasure and delight of knowledge and learning far surpasseth all other in nature"; that "Of knowledge there is no satiety, but satisfaction and appetite are perpetually interchangeable"; and that "By learning, man excelleth man in that wherein man excelleth beasts."

SECOND BOOK.

Bacon says: "It remaineth to consider of what kind those acts are which have been undertaken and performed by kings and others for the increase and advancement of learning." He asserts that: "All works are overcome by amplitude of reward,

by soundness of direction, and by the conjunction of labours " ; that : " The work or acts of merit towards learning are conversant about three objects—the places of learning, the books of learning, and the persons of the learned," each of which he discusses. He says that he finds it strange that all the colleges in Europe are dedicated to professions, and none left free to arts and sciences at large, and contends that the neglect of fundamental general principles has mainly hindered the progress of learning ; he advocates free high-class education, says that the salaries are not sufficient to secure the services of the best men as professors ; urges the necessity of expenditure on experiments ; complains of the want of interest shown by the governors of the universities in their working, the consequence being that antiquated usages and orders were still in force, as for example, that logic and rhetoric, fitter for graduates than novices, were taught to mere children, with the necessary consequence that those, the gravest of sciences, had degenerated into childish sophistry and ridiculous affectation. He complains of the neglect of subjects to cultivate the memory and invention, and which fit the scholars to the duties of life ; he laments the want of a bond of union between all the European universities, inasmuch as they have all one common object, and suggests that for those branches of knowledge that have been neglected or insufficiently dealt with, inquirers and writers should be maintained at the public charge. As to those neglected subjects, he says : " The endeavours of a private man may be but as an image in a cross-way ; that may point at the way, but cannot go it." He then proposes to himself a general survey of the field of knowledge, for the purpose of ascertaining what parts have been well cultivated, but imperfectly cultivated, or left wholly uncultivated. He says, however, that he is only going to refer to the omissions and deficiencies, " for it is one thing to set forth what ground lieth unmanured, and another thing to correct ill-husbandry in that which is manured." To those who may urge impossibility, he says : " I take it those

things are to be held possible which may be done by some person, though not by everyone, and which may be done by many though not by anyone." He divides human learning into three branches; says that man's understanding is the seat of learning, that history appeals to his memory, poesy to his imagination, philosophy to his reason, and that divine learning is distributable in like manner.

He divides history into natural, civil, ecclesiastical, and literary. He finds the first three extant, the fourth deficient, which he deplores, and says: "For it is not St. Augustine's nor St. Ambrose's works that will make so wise a divine as ecclesiastical history, thoroughly read and observed; and the same reason is of learning."

He divides the history of nature into three branches, *i.e.*, history of creatures, history of marvels, and history of arts. He finds the first extant, and in good perfection; the last two, handled weakly and unprofitably. He observes that: "As it is not yet known in what cases, and how far, effects attributed to superstition do participate of natural causes, therefore, howsoever the practice of such things is to be condemned, yet, from the speculation and consideration of them, light may be taken not only for the discerning of the offences, but for the further disclosing of nature." "It often cometh to pass," he says, "that mean and small things discover the great, better than great can discover the small;" and therefore Aristotle noteth well that "The nature of everything is best seen in its smallest portions." And for that cause he enquireth the nature of a commonwealth, first in a family, and the simple conjugations of man and wife, parent and child, master and servant, which are in every cottage.

He says that civil history is of three kinds, *i.e.*, memorials, perfect histories, and antiquities. He divides memorials into commentaries and registers. He says: "History, which may be called just and perfect history, is of three kinds, according to the object which it propoundeth or pretendeth to represent;

for it either representeth a time, or a person, or an action. The first we call chronicles, the second lives, and the third narrations or relations." He says: "It is in vain to note the heathen antiquities for deficient; deficient they are, no doubt, consisting most of fables and fragments, but the deficiencies cannot be holpen." He regrets that there is no perfect course of history for Græcia, from Theseus to Philopœmen, incorporating the text of Thucydides and Zenophon; and for Rome, from Romulus to Justinianus, incorporating the texts of Livius, Polybius, Sallustius, Cæsar, Appianus, Tacitus, and Herodianus.

Of modern histories, he regarded the greater part as beneath mediocrity; says that there is no worthy history of England; complains of the partiality and obliquity of the largest and latest work on the history of Scotland; and suggests as an excellent theme, in the absence of a more comprehensive undertaking, the study of the period in English history dating from the uniting of the roses to the uniting of the kingdoms.

He says:—"For lives, I do find it strange that these times have so little esteemed the virtues of the times, as that the writing of lives should be no more frequent. For narrations and relations of particular actions, there were also to be wished a greater diligence therein, for there is no great action but hath some good pen which attends it. And because it is an ability not common to write a good history, as may well appear by the small number of them: yet, if particularity of actions memorable were but tolerably reported as they pass, the compiling of a more complete history of times might be better expected when a writer should arise that were fit for it: for the collection of such relations might be as a nursery garden, whereby to plant a fair and stately garden when time should serve." He commends annals and journals, and refers with approbation to Cornelius Tacitus. He says that—"The history of cosmography is the part of learning of all others which, in this latter time, hath obtained more proficience. For it

may be truly affirmed to the honour of these times, and in a virtuous emulation with antiquity, that this great building of the world had never thorough lights made in it till the age of us and our fathers." He says :—"This proficience in navigation and discoveries may plant also an expectation of the further proficience and augmentation of all sciences."

He says that history ecclesiastical is susceptible of the same divisions as history civil, but that it may also be divided into the history of the church, the history of prophecy, and the history of providence. As to the first he says :—"This part I ought in no sort to note as deficient ; only I would that the virtue and sincerity of it were according to the mass and quantity." As to prophecy, and the accomplishment, he says :—"This is a work which I find deficient ; but it is to be done with wisdom, sobriety, and reverence, or not at all."

Orations, letters, and brief speeches or sayings, he styles appendices to history : concerning which he has no deficiencies to propound.

Poesy he says refers to the imagination, it being feigned history invented by man to satisfy his soul, because the acts or events of true history have not that magnitude which satisfieth the mind of man ; poesy feigneth acts and events, greater and more heroical. He says that poesy serveth and conferreth to magnanimity, morality, and to delectation, and that it has had access and estimation where other learning stood excluded. He divides it into narrative, representative, and allusive or parabolical, and says that, as hieroglyphics were before letters, so parables were before argument. He says that parable has at all times retained much life and vigour, because reason cannot be so sensible, nor examples so fit. He observes that parable has not merely been employed to enlighten, but to obscure, *e.g.*, where the secrets and mysteries of religion, policy, or philosophy are involved in fables or parables. Bacon's "Wisdom of the Ancients" is possibly the best existing exponent of this doctrine. He says that Homer was not the inventor of many of the fables in his poems.

He says :—" In this third part of learning, which is poesy, I can report no deficiencies. For being as a plant that cometh of the heart of the earth, without a formal seed, it hath sprung up and spread abroad more than any other kind ; but to ascribe unto it that which is due for the expressing of affections, fancies, imaginations, and customs, we are beholden to poets more than to the philosopher's work ; and for wit and eloquence not much less to orators' harangues. But it is not good to stay too long in the theatre. Let us now pass on to the judicial place, or palace of the mind, which we are to approach and view with more reverence and attention."

His first division of knowledge is into divinity and philosophy.

He says :—" In philosophy the contemplations of man do either penetrate unto God, or are circumferred to nature, or are reflected or reverted upon himself. Out of which several inquiries there do arise three knowledges—divine philosophy, natural philosophy, and human philosophy or humanity." He says that as each of these is but a branch of one whole, it is good, before discussing either, to constitute one universal science by the name of *Philosophia Prima*, which science, whether I should report as deficient or not, I stand doubtful. He states his reasons at some length, says that he finds a good deal of commixing and confusion, and gives instances of axioms equally applicable to different branches of learning. He concludes :—" This science, therefore, as I understand it, I may justly report as deficient."

He says that divine philosophy, or natural theology, is that knowledge, or rudiment of knowledge, concerning God, which may be obtained by the contemplation of his creatures. The bounds of this knowledge are that it sufficeth to convince atheism, but not to inform religion : and therefore, there was never miracle wrought by God to convert an atheist, because the light of nature might have led him to confess a God. For as all works do show forth the power and skill of the workman,

and not his image ; so it is of the works of God, which do shew the omnipotency and wisdom of the Maker, but not His image. He says that the heathens supposed the world to be the image of God, but that the scriptures do not speak of any other image of God but man. In divine philosophy he finds an excess. He considers that both religion and philosophy are prejudiced by being commixed together. As to the learning of angels and spirits, he considers it as rather fabulous and fantastical, but cannot note it as deficient. He says that it is no more unlawful to enquire into the nature of evil spirits than to enquire the force of poisons in nature, or the nature of sin and vice in morality.

He divides natural philosophy into the inquisition of causes and the production of effects—speculative and operative—natural science, and natural prudence. He says that the true meaning of the abused term, *natural magic*, is natural wisdom or natural prudence.

“Natural science or theory,” he says, “is divided into physique and metaphysique.” He says that he retains the term metaphysique because he likes old terms, but uses it in a sense different from the ancients. He finds fault with Aristotle for inventing new terms and disparaging the learning of his predecessors.

He says that physique should contemplate that which is inherent in matter, and therefore transitory ; and metaphysique that which is abstracted and fixed.

“Natural history,” he says, “describeth the variety of things ; physique the causes, but variable or respective causes ; and metaphysique the fixed and constant causes. Fire is the cause of induration, but respective to clay ; fire is the cause of colliquation, but respective to wax ; but fire is no constant cause either of induration or colliquation ; so then the physical causes are but the efficient and the matter. Physique hath three parts, whereof two respect nature united or collected, the third contemplateth nature diffused or distributed.” “Of

these three," he says, "I cannot report any as deficient. In what truth or perfection they are handled I make not now any judgment, but they are parts of knowledge not deserted by the labour of man."

Having assigned to metaphysique the enquiry of formal and final causes, he says that the invention of forms is of all other parts of knowledge the worthiest to be sought, if it be possible to be found. "As for the possibility," he says, "they are ill discoverers that think there is no land, when they can see nothing but sea." He finds fault with Plato for infecting his natural philosophy with theology. To enquire the form of a lion, of an oak, of gold; nay, of water, of air, is a vain pursuit, but to inquire the forms of sense, of voluntary motion, of vegetation, of colours, of gravity and levity, of density, of tenuity, of heat, of cold, and all other natures and qualities which, like an alphabet, are not many, and of which the essences, upheld by matter, of all creatures do consist; to enquire, I say, the true forms of these, is that part of metaphysique which we now define of. This part of metaphysique I do not find laboured and performed, whereat I marvel not, because I hold it not possible to be invented by that course of invention which hath been used."

He compares all knowledge to a pyramid, natural history being the base, physique its immediate superstructure, and metaphysique its highest elevation, and says: "As for the vertical point, '*Opus quod operatur Deus a principio usque ad finem*,' the summary law of nature, we know not whether man's inquiry can attain unto it."

The second part of metaphysique is the inquiry of final causes, which he says, "I am moved to report not as omitted, but as misplaced."

He regards mathematics as a branch of metaphysique, the subject of it being quantity, determined or proportionable; and says it is true also that of all other forms, as we understand forms, it is the most abstracted and separable from

matter, and therefore most proper to metaphysique, which has likewise been the cause why it hath been better laboured and inquired than any of the other forms, which are more immersed in matter. As to the mixed mathematics, he predicts that there cannot fail to be more kinds of them, as nature grows further disclosed.

He divides natural prudence into experimental, philosophical, and magical; and concerning natural magic, says it is as far differing in truth of nature from such a knowledge as we require, as the story of King Arthur of Britain, or Hugh of Bordeaux, differs from Cæsar's Commentaries in truth of story. For it is manifest that Cæsar did greater things, "*de vero*," than those imaginary heroes were feigned to do; but he did them not in that fabulous manner.

He ranks the natural magic, alchemy, astrology, and the like of his period, on the same level; ridicules them, and says: "To conclude, therefore, the term 'natural magic,' which is that great liberty and latitude of operation which dependeth upon the knowledge of forms, I may report deficient, as the relative thereof is."

He concludes this branch of his investigation thus:—"Thus have I passed through natural philosophy, and the deficiencies thereof: wherein if I have differed from the ancient and received doctrines, and thereby shall move contradiction, for my part, as I affect not to dissent, so I propose not to contend."

The remainder of this book being rather a series of short essays on subjects incidental to, and illustrative of the main inquiry, than a continuation of it, I propose under their respective titles to give some notion of the leading ideas.

REGISTRY OF DOUBTS.—The registering of doubts hath two excellent uses; the one, that it saveth philosophy from errors and falsehoods; the other, that the entry of doubts is as so many suckers or sponges to draw use of knowledge. But both these commodities do scarcely countervail an inconvenience

which will intrude itself, if it be not debarred : which is, that when a doubt is once received, men labour rather how to keep it a doubt still, than how to solve it. To which calendar of doubts or problems I advise be annexed another calendar, as much or more material, which is a calendar of popular errors.

The doubts (*non liquets*) to which he alludes are the differences of opinion as to the principles of nature that have given rise to the diversity of sects, schools, and philosophies. After saying that Copernicus supposed the earth to move, he adds, "For as Aristotle saith, that children at the first will call every woman mother, but afterwards they come to distinguish according to truth ; so experience, if it be in childhood, will call every philosophy mother, but when it cometh to ripeness it will discern the true mother." "Human philosophy or humanity," he says, "hath two parts, the one considereth man segregate or distributively, the other congregate or in society. Humanity discusses the knowledge we have, first, of the human body ; secondly, of the human mind ; and thirdly, of the sympathies and concordances between the mind and the body. Of the last there are two branches, discovery and impression. Discovery has begotten two arts, viz., I. physiognomy—studied by Aristotle—which discovers the disposition of the mind by the lineaments of the body ; II. the exposition of natural dreams—studied by Hippocrates—which discovers the state of the body by the imaginations of the mind." He finds Aristotle deficient in that he omitted to deal with the gestures of the body. He compliments His Majesty James I. on his saying, that, "As the tongue speaketh to the ear, so the gesture speaketh to the eye." He says that the question, how far the humours and affects of the body do alter or work upon the mind, has been considered as a part of religion or superstition in the question of diet and fastings. As to how, and how far, the passions or apprehensions of the mind do alter or work upon the body, he says, although it hath a manifest power to hurt, it followeth not that it hath the same degree of power

to help. These subjects, he says, require greater attention than they have had.

He says that the good of man's body is of four kinds—health, beauty, strength, and pleasure; each of which has its corresponding art, *i.e.*, medicine, or art of cure; decoration, called cosmetique; activity, called athleticque; and voluptuary, which, he says, Tacitus truly calleth *eruditus luxus*.

He says that of all the substances that nature has produced, the human body is the most extremely compounded, and that, on the other hand, the soul is the most simple.

He says that whereas the advocate and the captain are judged by their performances, the physician, and perhaps the politician, are rather judged by events. "Who," he says, "can tell if a patient die or recover, or if a state be preserved or ruined, whether it be by art or accident? And therefore many times the impostor is prized, and the man of virtue taxed." Hence, he argues, the neglect of physicians to study their arts; he accuses them of want of observation, and says: "Medicine is a science which hath been more professed than laboured, and yet more laboured than advanced; the labour having been, in my judgment, rather in circle than in progression. For I find much iteration, but small addition." He indicates various particulars in which he considers them at fault, touches upon *vivisection*, of which he approves, as also mitigation of pain and dolours. As to what are or are not incurable diseases, he says that "Sylla and the triumvirs never proscribed so many men to die as the physicians do by their ignorant edicts, whereof numbers do escape with less difficulty than they did in the Roman proscriptions."

Human knowledge which concerns the mind, he says, is divided into two branches, rational and moral; the one inquires into the substance or nature of the soul or mind, the other into its faculties or functions. The investigation into the former he holds to have been rather in a maze than in a way, and asserts that the true knowledge of the nature and state

of the soul must be derived from inspiration. He touches upon divination and fascination, or the power and act of imagination on bodies other than that of the imaginant, and says that they have rather vapoured forth fables than kindled truth.

He says that the knowledge respecting the faculties of the mind is of two kinds, the one respecting man's understanding and reason; the other his will, appetites, and affections.

He quotes with approval the saying of Aristotle: "The mind hath over the body that commandment which the lord hath over a bondman; but reason hath over the imagination that commandment which a magistrate hath over a free citizen." "For," he says, "we see that in matters of faith and religion, we raise our imagination above our reason, which is the cause why religion ever sought access to the mind by similitudes, types, parables, visions, dreams."

The arts intellectual, he says, are four in number: the art of inquiry or invention, the art of examination or judgment, the art of custody or memory, the art of elocution or tradition. The first he reports as deficient, notwithstanding the fact that it is the most important, and, in fact, the means of acquiring all the rest. He, in short, ascribes inventions rather to accident than to art, and rather to the lower animals than to man, and says: "So as it should seem, that hitherto men are rather beholden to a wild goat for surgery, or to a nightingale for music, or to the ibis for some part of physic, or to the pot-lid that flew open for artillery, or generally to chance, or anything else, than to logic, for the invention of arts and sciences." He says: "Who taught the ant to bite every grain of corn that she burieth in her hill, lest it should take root and grow?" "We are where we were, even amongst the Egyptian's gods." He holds the form of induction of the logician to be utterly vicious, and says: "It is not without cause that so many excellent philosophers became sceptics and academics, and denied any certainty of knowledge or comprehension, and held opinion

that the knowledge of man only extended to appearances and probabilities."

"The invention of speech or argument is not properly an invention: for to invent is to discover that we know not, and not to recover or re-summon that which we already know." "To procure the ready use of knowledge there are two courses—preparations and suggestion." Plato saith:—"Whosoever seeketh, knoweth that which he seeketh for in a general notion: else how shall he know it when he hath found it?" "And therefore the larger your anticipation is, the more direct and compendious is your search." This part of invention he could not report to be deficient. "Topics are of two sorts, general and special. Every degree of proceeding in a science giveth light to that which followeth."

"We now," he says, "pass unto the arts of Judgment, which handle the natures of proofs and demonstrations." For the real and exact form of judgment he refers to what he has already said of 'interpretation of nature.'

Concerning judgment by syllogism, he says:—"This art of judgment," which he regards as having been well handled, "is but the reduction of propositions to principles in a middle term: the principles to be agreed by all and exempted from argument; the middle term to be elected at the liberty of every man's invention; the reduction to be of two kinds, direct and inverted; the one when the proposition is reduced to the principle, which they term a *probation ostensive*; the other, when the contradictory of the proposition is reduced to the contradictory of the principle, which is that which they call '*per incommodum*' or pressing an absurdity; the number of middle terms to be as the proposition standeth degrees more or less removed from the principal." "This art," he says, "hath two several methods of doctrine, the one by way of direction, the other by way of caution." The former being that part of logic comprehended in the analytics; the latter termed *elenches*, of which Aristotle in precept, and Plato in example,

are the great masters. Plato, professing to affirm nothing, but to inform that which was affirmed by another, hath exactly expressed all the forms of objection, fallacy, and redargution. He says, "The great sophism of all sophisms being equivocation or ambiguity of words and phrase—especially of such words as are most general, and intervene, in every inquiry—it seemeth to me that the true and faithful use, leaving vain subtiles and speculations of the inquiry of majority, minority, priority, posteriority, identity, diversity, possibility, totality, parts, existence, privation, and the like, are but wise cautions against ambiguities of speech. So again the distribution of things into certain tribes, which we call categories or predicaments, are but cautions against the confusions of definitions and divisions." . . . "But lastly, there is yet a much more important and profound kind of fallacies in the mind of man, which I find not observed or inquired at all." He says, "The mind of man is far from being of the nature of a clear and equal glass, wherein the beams of things should reflect according to their true incidence; nay, it is rather like an enchanted glass, full of superstition and imposture, if it be not delivered and reduced." "We look, in short, at everything through the medium of our crude and erroneous notions of duty and nature." "Nay," he says, "it is not credible, till it be opened, what a number of fictions and fancies the similitude of human actions and arts, together with the making of man *communis mensura*, have brought into Natural Philosophy; not much better than the heresy of the Anthropomorphites, bred in the cells of gross and solitary monks, and the opinion of Epicurus, answerable to the same in heathenism, who supposed the gods to be of human shape."

Of words, he says:—"Certain is it that words, as a Tartar's bow, do shoot back upon the understanding of the wisest, and mightily entangle and pervert the judgment; so as it is almost necessary, in all controversaries and disputations, to imitate the wisdom of the mathematicians, in setting down in the very

beginning the definition of our own words and terms, that others may know how we accept and understand them, and whether they concur with us or no. For it cometh to pass, for want of this, that we are sure to end there where we ought to have begun, which is in questions and differences about words."

The learning on the different kinds of proof applicable to the different kinds of subject he finds deficient. There are, he says, four kinds of demonstrations, *i.e.*, sense, induction, sophism, and congruity. The practice of applying the one where another ought to be used, he regards as the greatest cause of detriment to knowledge. His comments on note-books and aids to memory, as also on the means of tradition of knowledge, *i.e.*, gesture, speech, writing, and method, are possibly somewhat commonplace.

As to aphorisms, he says:—"Except they should be ridiculous, they cannot be made but of the pith and heart of sciences, and therefore no man can suffice, nor in reason will attempt to write aphorisms, but he that is sound and grounded."

He says, "Those whose conceits are seated in popular opinions, need only but to prove or dispute; but those whose conceits are beyond popular opinions have a double labour; the one to make themselves conceived, and the other to prove and demonstrate: so that it is of necessity with them to have recourse to similitudes and translations to express themselves."

"There hath been also laboured and put in practice a method, which is not a lawful method, but a method of imposture; which is to deliver knowledges in such manner as men may speedily come to make a show of learning who have it not: such was the travail of Raymundus Lullius in making that art which bears his name. . . . Which collections are much like a fripper's or broker's shop, that hath ends of everything, but nothing of worth."

Rhetoric, he says, is a science excellent and excellently well laboured. Wisdom secures respect, but eloquence moves the masses. The duty and office of rhetoric is to apply reason to imagination for the better moving of the will.

As in negotiations with others, men are wrought by cunning, by importunity, and by vehemency, so in this negotiation within ourselves, men are undermined by inconsequences, solicited and importuned by impressions or observations, and transported by passions.

Plato said elegantly, that virtue, if she could be seen, would move great love and affection.

"Rhetoric can no more be charged with the colouring of the worst part than can logic be with sophistry, or morality with vice. As in buildings there is great pleasure and use in the well-casting of the staircases, entries, doors, windows, and the like ; so in speech, the conveyances and passages are of special ornament and effect."

"It is an inquiry of great wisdom what kinds of art and natures are most apt and proper for what sciences."

"As is well observed by Cicero, men in exercising their faculties, if they be not well advised, do exercise their faults, and get ill habits as well as good ; so there is a good judgment to be had in the continuance and intermission of exercises."

"The culture and manurance of minds in youth hath such a forcible, though unseen, operation, as hardly any length of time or contention of labour can countervail it afterwards."

"Doctrine should be such as should make men in love with the lesson, and not with the teacher ; being directed to the auditor's benefit, and not to the author's commendation."

"The main and primitive division of moral knowledge seemeth to be into the exemplar or platform of good, and the regiment or culture of the mind : the one describing the nature of good, the other prescribing rules how to subdue, apply, and accommodate the will of man thereunto."

"Men must know that in this theatre of man's life it is reserved only for God and angels to be lookers on."

"As that health of body is best which is ablest to endure all alterations and extremities ; so likewise that health of mind is most proper which can go through the greatest temptations and perturbations."

"As those which are sick, and find no remedy, do tumble up and down and change place as if by a remove local they could obtain a remove internal; so is it with men in ambition when, failing of the means to exalt their nature, they are in a perpetual estuation to exalt their place."

"Every obtaining a desire hath a show of advancement, as motion, though in a circle, hath a show of progression."

"Neither can a man understand virtue without some relation to society, nor duty without an inward disposition."

"An honest man can do no good upon those that are wicked to reclaim them, without the help of the knowledge of evil. For men of corrupted minds presuppose that honesty groweth out of simplicity of manners, and believing of preachers, school-masters, and men's exterior language: so as, except you can make them perceive that you know the utmost reaches of their own corrupt opinions, they despise all morality."

"The husbandman cannot command neither the nature of the earth, nor the seasons of the weather—no more can the physician the constitution of the patient, nor the variety of accidents; so in the culture and cure of the mind of man, two things are without our command—points of nature and points of fortune; for to the basis of the one and the conditions of the other our work is limited and tied."

"As, in medicining of the body, it is in order first to know the divers complexions and constitutions; secondly, the diseases; and lastly, the cures: so in medicining of the mind, after knowledge of the divers characters of men's natures, it followeth in order to know the diseases and infirmities of the mind, which are no other than the perturbations and distempers of the affections."

"As we divide the good of the body into health, beauty, strength, and pleasure; so the good of the mind inquired in rational and moral knowledges tendeth to this, to make the mind sound and without perturbation; beautiful and graced with decency; and strong and agile for all duties of life.

These three, as in the body, so in the mind, seldom meet, and commonly sever."

"Moral philosophy propoundeth to itself the framing of internal goodness; but civil knowledge requireth only an external goodness; for that as to society sufficeth."

"Man seeketh in society comfort, use, and protection, and they be three wisdoms of divers natures which do often sever: wisdom of the behaviour, wisdom of business, and wisdom of state."

"Behaviour seemeth to me as a garment of the mind, and to have the conditions of a garment. For it ought to be made in fashion; it ought not to be too curious; it ought to be shaped so as to set forth any good making of the mind, and hide any deformity; and, above all, it ought not to be too straight or restrained for exercise or motion."

"The wisdom touching negotiation or business hath not been hitherto collected into writing, to the great derogation of learning, and the professors of learning."

"It is as hard and severe a thing to be a true politician as to be truly moral."

"No man's fortune can be an end worthy of his being; and many times the worthiest men do abandon their fortune willingly for better respects: but, nevertheless, fortune, as an organ of virtue and merit, deserveth the consideration."

"Experience showeth there are few men so true to themselves and so settled, but that, sometimes upon heat, sometimes upon bravery, sometimes upon kindness, sometimes upon trouble of mind and weakness, they open themselves; especially if they be put to it with a counter-dissimulation, according to the proverb of Spain, 'Tell a lie and find a truth.'"

"Men's weaknesses and faults are best known from their enemies, their virtues and abilities from their friends, their customs and times from their servants, their conceits and opinions from their familiar friends with whom they discourse most. General fame is light, and the opinions conceived by

superiors or equals are deceitful ; for, to such, men are more masked. But the soundest disclosing and expounding of men is by their natures and ends, wherein the weakest sort of men are best interpreted by their natures, and the wisest by their ends."

"There is commonly less money, less wisdom, and less good faith, than men do account upon." (An Italian proverb.)

"Nothing is more unfortunate than light and rash intermeddling in many matters."

"Next to the well understanding and discerning of a man's self, there followeth the well opening and revealing a man's self ; wherein we see nothing more usual than for the more able man to make the less show."

"Some measure things according to the labour and difficulty, or assiduity, which are spent about them ; and think, if they be ever moving, that they must needs advance and proceed. . . . So in most things men are ready to abuse themselves in thinking the greatest means to be best, when it should be the fittest."

"It is in life as it is in ways, the shortest way is commonly the foulest, and surely the fairer way is not much about."

"It is to small purpose to have an erected face towards heaven, and a perpetual grovelling spirit upon earth, eating dust, as doth the serpent."

"Concerning Government, it is a part of knowledge secret and retired, in both these respects in which things are deemed secret ; for some things are secret because they are hard to know, and some because they are not fit to utter. We see all governments are obscure and invisible."

"In the governors towards the governed, all things ought, as far as the frailty of man permitteth, to be manifest and revealed. . . . So unto princes and states, especially towards wise senates and councils, the natures and dispositions of the people, their conditions and necessities, their factions and combinations, their animosities and discontents, ought to be, in

regard to the variety of their intelligencies, the wisdom of their observations, and the height of their station where they keep sentinel, in great part clear and transparent."

"For the more public part of government, which is laws, I think good to note only one deficiency; which is, that all those which have written of laws have written either as philosophers or as lawyers, and none as statesmen. As for the philosophers, they make imaginary laws for imaginary commonwealths; and their discourses are as the stars, which give little light, because they are so high. For the lawyers, they write according to the states where they live, what is received law, and not what ought to be law: for the wisdom of a law-maker is one, and of a lawyer is another. For there are in nature certain fountains of justice, whence all civil laws are derived but as streams: and like as waters do take tinctures and tastes from the soils through which they run, so do civil laws vary according to the regions and governments where they are planted, though they proceed from the same fountains."

"He that will reduce a knowledge into an art, will make it round and uniform: but in divinity many things must be left abrupt, and concluded with this: '*O altitudo sapientiae et scientiae Dei! quam incomprehensibilia sunt judicia ejus, et non investigabiles viæ ejus!*'"

"Thus have I made, as it were, a small globe of the intellectual world as truly and faithfully as I could discover; with a note and description of those parts which seem to me not constantly occupate, or not well converted by the labour of man."

THE NOVUM ORGANUM, OR TRUE SUGGESTIONS FOR THE INTERPRETATION OF NATURE.

This work is divided into two books, viz.: I. Aphorisms on the interpretation of nature and the empire of man, 130 sections; and II., Aphorisms on the interpretation of nature or the reign of man, 52 sections.

In the preface, Bacon defines the method of investigating

nature adopted by the ancients as "the anticipation of the mind," the method suggested by himself as "the interpretation of nature." He says that it is no part of his scheme to attempt to rival the old masters; they worked in their way, he professes to work in his—each may throw light on the other. As for himself, he assumes the character of a guide merely. Though not liking those who assert that nothing whatever can be known, he infinitely prefers them to those who dogmatize on nature as on some well-investigated subject, and declares that such men have inflicted the greatest injury on philosophy and learning. He says the more ancient Greeks, whose writings have perished, held a more prudent mean between the arrogance of dogmatism and the despair of scepticism.

The following must be accepted as a mere skeleton, and not as the actual language of Bacon.

BOOK I.

Aphorisms on the interpretation of nature and the empire of man.

1. Man understands as much of nature as his observations permit him, and neither knows nor is capable of more.
2. Effects are produced by the means of instruments and helps, which the understanding requires no less than the hand.
3. Knowledge and human power are synonymous.
4. Man, whilst operating, can only apply or withdraw natural bodies; nature internally performs the rest.
5. The mechanics, mathematicians, physicians, alchymists, and magicians, become practically versed in nature.
6. Things which have never been performed cannot be performed without employing hitherto untried means.
7. The creations, whether of the mind or hand, are deductions from a few well-known matters, and are nothing like so numerous as they appear in books.
8. The effects already discovered are rather due to chance and experiment than to science.

9. The cause of defect in the sciences is undue reliance on the human mind, and neglect of its helps.

10. The subtility of nature is far beyond that of the senses or the understanding.

11. The present sciences are useless for the discovery of effects ; the present system of logic for the discovery of the sciences.

12. The tendency of our logic is rather to make existing error inveterate than to discover truth.

13. The syllogism not being applied to principles, is of no avail in intermediate axioms. It forces assent, not things.

14. Words are the signs of notions ; propositions consist of words ; the syllogism consists of propositions. If the notion is confused, there is no solidity in the superstructure. Genuine induction is our only hope.

15. We have no sound notions either in logic or physics. The words *substance*, *weight*, &c., convey no clear notions ; they are ill-defined.

16. The words man, heat, &c., do not deceive us materially, yet even these are sometimes confused by the mutability of matter, &c.

17. There is the same degree of licentiousness and error in forming axioms as in abstracting notions.

18. We must penetrate the more secret and remote parts of nature, and not be content, as hitherto, with what lies immediately below the surface.

19. There are but two ways of investigating and discovering truth, viz. : I. That now in use, which constructs its general axioms relying on the senses and particular instances, and from those axioms, as indisputable truths, derives its intermediate axioms. II. The other yet unattempted way, constructs its axioms from the senses and particulars, ascending step by step, till it finally arrives at the most general axioms. This is the true way.

20. As the mind has a tendency to generalise when left to itself, the understanding naturally adopts the first method.

21. The unaided understanding is unequal to the task of vanquishing the obscurity of things.

22. Whereas the latter method is thorough, the former merely touches cursorily the limits of experiment and particulars.

23. Between certain idle dogmas and the facts of nature the difference is not slight.

24. Axioms resulting from arguments cannot assist in the discovery of new effects. But axioms regularly extracted from particulars do.

25. Existing axioms, being derived from slender experience and but few particulars, are necessarily defective. When found so, resort is commonly had to frivolous distinctions instead of amendment.

26. By the term "Anticipation of nature," we intend the human reasoning which we apply to nature; and by the term "Interpretation of nature," that reason which is properly deduced from things.

27. Anticipations are powerful in producing unanimity. If men were uniformly mad they might agree tolerably well.

28. Anticipations are more readily assented to than interpretations.

29. In sciences founded on opinions and dogmas, anticipations and logic should be used, if the wish is to force assent rather than things.

30. No great progress could be made in learning by anticipations.

31. No great progress could be made in the sciences by engrafting new matter on the old. Unless we wish to revolve for ever in a circle, an instauration must be made from the very foundations.

37. The sceptics assert that nothing can be known; we say that but little can be, by the existing system; they destroy

the authority of the senses and understanding ; we invent and supply them with assistance.

39. Idols of the tribe ; idols of the den ; idols of the market ; and idols of the theatre, as we call them, are the four species of idols which beset the human mind.

40. The doctrine of idols bears the same relation to the interpretation of nature, as that of the confutation of sophisms does to common logic.

41. By the expression "The idols of the tribe," is intended man's reliance on his senses as the standard which is common to all, whence arise errors common to the human race.

42. By "Idols of the den," is intended those errors which, in addition to the former, are peculiar to individuals, and result from personal capacity, training, &c.

43. By "Idols of the market," is intended the confusion of ideas arising from the infirmity of language and the ill-use or understanding of terms.

44. By "Idols of the theatre," is intended the erroneous dogmas and axioms of the different systems of philosophy, which have or which may find favour with man.

45. One of the idols of the tribe *is that all celestial bodies move in perfect circles*, an error resulting from the tendency of the human understanding to undue generalisation, and neglect of the fact that many things in nature are *sui generis*.

46. When the mind has once accepted a proposition as fact, it fights in defence of that assumed fact, struggles to reconcile inconsistent facts, and rejects those that it cannot reconcile. Hence the vitality of superstitions and scientific fallacies.

47. The fewer the mental impressions the greater is the strength of each, and the more dogged the tenacity of its possessor.

48. The activity of the human understanding induces the attempt to comprehend matters beyond its grasp, *e.g.*, the cause of things not causable : failing, it falls back to what is actually less advanced, *viz.* :—final causes ; for they are clearly more

allied to man's own nature than the system of the universe. In this way philosophy has been wonderfully corrupted.

49. Each human understanding being tinctured by the will and passions of the individual, is imbued and corrupted by his failings in innumerable and sometimes in imperceptible ways.

50. But by far the greatest impediment and aberration of the human understanding proceeds from the dulness, incompetency, and errors of the senses ; since whatever strikes the senses preponderates over everything, however superior, which does not immediately strike them. Hence contemplation mostly ceases with sight ; and very scanty, or perhaps no regard, is paid to invisible objects.

51. The human understanding is, by its own nature, prone to abstraction, and to suppose that which is fluctuating to be fixed. But it is better to dissect than abstract nature.

52. Such are the "idols of the tribe."

53. The "idols of the den" derive their origin from the peculiar nature of each individual's mind and body ; as also from education, habit, and accident. They are various and manifold. The following are some of those that exert the greatest power in polluting the understanding.

54. Men who, having a pet science or hobby, apply themselves to philosophy in general, and the contemplation of universal nature, wrest and corrupt everything by their preconceived fancies ; thus, Aristotle, whose favourite subject was logic, made his natural philosophy little more than useless and disputatious.

55. Philosophers and scientists may be divided into two classes : the dominant faculty of the one is to detect *differences* of things, that of the other, *resemblances*. Each class readily falls into excess, by catching either at nice distinctions or shadows of resemblance.

56. With some, *antiquity*, with others *novelty*, is everything ; but few can preserve the just medium so as neither to tear up what the ancients have correctly laid down, nor to despise the just innovations of the moderns.

57. The understanding is distracted and weakened by the sole contemplation of nature and bodies in their individual form ; it is stupified and relaxed by their sole contemplation in their general composition and formation. Nature, to be understood, must be equally viewed from each standpoint.

58. He who contemplates nature should suspect whatever particularly takes and fixes his understanding.

59. The "idols of the market" are the most troublesome of all. Men imagine that their reason governs words, whilst, in fact, words re-act upon the understanding ; and this has rendered philosophy and the sciences sophistical and inactive. The great and solemn disputes of learned men often terminate in controversies about words and names.

60. The idols imposed upon the mind by words are of two kinds, viz. :—I. Names given to imaginary objects, *e.g.*, fortune, the elements of fire, &c. II. Names of actual objects, but confused, badly defined, and hastily and irregularly abstracted from things, *e.g.*, moist, heavy, light, rare, dense. The latter class is the more pernicious.

61. The "idols of the theatre," *i.e.*, the erroneous dogmas and axioms of the different systems of philosophy which have or which may find favour with men, are not innate, nor do they introduce themselves secretly into the understanding : but are manifestly instilled and cherished by the fictions of theories and depraved rules of demonstration. "The lame in the path outstrip the swift who wander from it." It is clear that the very skill and swiftness of him who runs out of the right direction must increase his aberration.

62. The "idols of the theatre," or theories, are numerous, and may, and probably will, be still more so. In general, men take for the ground-work of their philosophy either too much from a few topics, or too little from many ; in either case their philosophy is founded on too narrow a basis of experiment and natural history, and decides on too scanty grounds. There are three sources of error, and three species of false philosophy :—the sophistic, empiric, and the superstitious.

63. Aristotle affords the most eminent instance of the first : for he corrupted natural philosophy by logic.

64. The empiric school produces dogmas of a more deformed and monstrous nature than the sophistic or theoretic school : not being founded in the light of common notions, but in the confined obscurity of a few experiments. We have a strong instance of this in the alchymists and their dogmas.

65. The corruption of philosophy by the mixing of it up with superstition and theology is of a much wider extent, and is most injurious to it both as a whole and in parts. There is a clear example of this among the Greeks, especially in Pythagoras, where, however, the superstition is coarse and overcharged, but it is more refined and dangerous in Plato and his school. . . . The apotheosis of error is the greatest evil of all, and when folly is worshipped, it is, as it were, a plague spot upon the understanding. Yet some of the moderns have indulged this folly with such consummate inconsiderateness, that they have endeavoured to build a system of natural philosophy on the first chapter of Genesis, the book of Job, and other parts of Scripture ; seeking thus the dead among the living.

66. In this section Bacon declares the ordinary subjects of contemplation, especially in natural philosophy, to be faulty, and indicates what he considers to be the proper direction of enquiry.

67. In this section he cautions the reader against the intemperance of systems, the excesses of which, he says, are of two kinds. The first is seen in those who decide hastily and render the sciences positive and dictatorial : the other in those who have introduced scepticism and vague unbounded inquiry. He contrasts the schools of Aristotle and Plato, and observes that when the human mind has once despaired of discovering truth, everything begins to languish.

69. Vicious demonstrations are the muniments and supports of idols, and those which we possess in logic merely subject and enslave the world to human thoughts, and thoughts to words.

He says:—I. The impressions of the senses are erroneous. II. Notions are improperly abstracted from the senses. III. The induction which is employed is improper. IV. The usual method of discovery and proof by first establishing the most general propositions, then applying and proving the intermediate axioms according to them, is the parent of error and the calamity of every science.

70. Nobody can successfully investigate the nature of any object by considering that object only,—the enquiry must be more generally extended. Axioms, when rightly investigated and established, prepare us not for a limited, but abundant practice, and bring in their train whole troops of effects.

71. The sciences we possess have been principally derived from the Greeks. But the wisdom of the Greeks was professional and disputatious, and thus most adverse to the investigation of truth. Nor must we omit the opinion, or rather prophecy, of an Egyptian priest with regard to the Greeks:—They will forever remain children, without any antiquity of knowledge or knowledge of antiquity.

74. If the theories we have mentioned were not like plants torn up by the roots, but grew in the womb of nature and were nourished by her, that which for the last two thousand years has taken place would never have happened, viz., that the sciences still continue in their beaten track, and nearly stationary, without having received any important increase; nay, having, on the contrary, rather bloomed under the hands of their first author and then faded away. The reverse is the case with the mechanical arts.

77. There is no worse augury in intellectual matters than that derived from unanimity, except in the cases of divinity and politics, where suffrages are allowed to decide. We may well transfer Phocion's remark from morals to the intellect: "Men should immediately examine what error or fault they have committed when the multitude concurs with and applauds them."

78. There are deserts and wastes in time as in countries, and we can only reckon up three revolutions and epochs of philosophy. I. The Greek. II. The Roman. III. Our own, *i.e.*, the philosophy of the western nations of Europe: and scarcely two centuries can with justice be assigned to each. . . . The first cause, then, of such insignificant progress in the sciences, is rightly referred to the small proportion of time which has been favourable thereto.

79. The second and most important cause of the non-progress of natural philosophy, even during the three periods of mental activity, he ascribes to the preference evinced for other branches of learning, *e.g.*, he says that when Christianity became the established religion in Europe, theology paid better than any other branch of study. Civil affairs were the absorbing topic of the best Roman minds; philosophical meditation and labour were chiefly occupied and wasted in moral philosophy, which he styles "the theology of the heathens." With the Greeks, moral philosophy and politics were the popular studies.

80. He contends that, till natural philosophy, the mother of the sciences, is properly handled and developed, neither of the other sciences, nor even moral and political philosophy, can flourish aright.

81. He says it is impossible to advance the sciences properly when the goal is not properly fixed; that the real and legitimate goal of the sciences is the endowment of human life with new inventions and riches.

82. Even if the end and goal were properly fixed, men have chosen an erroneous and impassible direction. The mists of tradition, the whirl and confusion of argument, the waves and mazes of chance, desultory ill-combined essays, have taken the place of regular and well-conducted experiment. When any one prepares himself for discovery, he first enquires and obtains a full account of all that has been said on the subject by others, then adds his own reflections, and stirs up and, as it were, involves his own spirit, after much mental labour, to disclose its

oracle. There remains but one experience, which, when it offers itself, is called chance; when it is sought after, experiment.

84. It would indeed be dishonourable to mankind if the regions of the material globe, the earth, the sea and stars, should be so prodigiously developed and illustrated in our age, and yet the boundaries of the intellectual globe be confined to the narrow discoveries of the ancients.

85. The manufacture of clocks is delicate and accurate, and appears to imitate the heavenly bodies in their wheels and the pulse of animals in their regular oscillation, yet it only depends upon one or two axioms of nature.

To say the truth, when contemplation and doctrinal science began, the discovery of useful works ceased.

The magnitude of our libraries excites admiration, but the careful examination of the contents of the books reveals the paucity of matter. We may well apply to the alchymists the fable of the old man, who bequeathed to his sons some gold buried in his garden, pretending not to know the exact spot, whereupon they worked diligently in digging the vineyard, and though they found no gold, the vintage was rendered more abundant by their labours.

88. Want of energy, and the littleness and futility of the tasks that human industry has undertaken, have produced immense injury to the sciences: and yet—to make it still worse—that very want of energy manifests itself in conjunction with arrogance and disdain.

It is the greatest proof of want of skill to investigate the nature of any object in itself alone, for that same nature, which seems concealed and hidden in some instances, is manifest and almost palpable in others, and excites wonder in the former, whilst it hardly attracts attention in the latter.

89. Nor should we neglect to observe that natural philosophy has, in every age, met with a troublesome and difficult opponent: I mean superstition, and a blind and immoderate zeal

for religion. In short, you may find all access to any species of philosophy, however pure, intercepted by the ignorance of divines. But any one who properly considers the subject will find natural philosophy to be, after the word of God, the surest remedy against superstition, and the most approved support of faith.

90. Again, in the habits and regulations of schools, universities, and the like assemblies, destined for the abode of learned men and the improvement of learning, everything is found to be opposed to the progress of the sciences.

91. The advancement of science is the work of a powerful genius; the prize and reward belong to the vulgar, or to princes, who, with a few exceptions, are scarcely moderately well informed. It is not wonderful, therefore, that little success has attended that which has been little honoured.

92. But by far the greatest obstacle to the advancement of the sciences, and the undertaking of any new attempt or department, is to be found in men's despair and the idea of impossibility.

95. The bee extracts matter from the flowers of the garden and the field, but works and fashions it by its own efforts. The true labour of philosophy resembles hers, for it neither relies entirely or principally on the powers of the mind, nor yet lays up in the memory the matter afforded by the experiments of natural history or mechanics in its raw state, but changes and works it in the understanding.

96. Natural philosophy is not yet to be found unadulterated, but is impure and corrupted; by logic in the school of Aristotle, by natural theology in that of Plato, by mathematics in the second school of Plato, that of Proclus and others, which ought rather to terminate natural philosophy than to generate or create it.

98. Learned, but idle and indolent men, have received some mere reports of experience, traditions, as it were, of dreams, as establishing or confirming their philosophy, and have not

hesitated to allow them the weight of legitimate evidence. Nothing is rightly inquired into, or verified, noted, weighed, or measured in natural history. Indefinite and vague observation produces fallacious and uncertain information.

100. We must not only search for and procure a greater number of experiments, but must also introduce a completely different method, order, and progress of continuing and promoting experience.

105. The induction which proceeds by simple enumeration is puerile, leads to uncertain conclusions, and is exposed to obvious danger from one contradictory instance, deciding generally from too small a number of facts, and those only the most obvious.

But a really useful induction for the discovery and demonstration of the arts and sciences should separate nature by proper rejections and exclusions, and then conclude for the affirmative after collecting a sufficient number of negatives. Now this has not been done, or even attempted, except, perhaps, by Plato, who certainly uses this form of induction in some measure, to sift definitions and ideas. The assistance of induction is to serve us, not only in the discovery of axioms, but also in defining our notions.

109. Referring to the discovery of gunpowder, silk, and the compass, he says: "That no previous knowledge could have led to either discovery, and affirms that neither discovery was the result of philosophy or reasoning, but of chance and opportunity." He ventures to think that many excellent and useful matters yet treasured up in the bosom of nature will be brought to light for the benefit of man.

110. He emphasises the enormous importance of the discovery of printing, and says: "It appears at first incredible that any such discovery should be made, and when it has been made it appears incredible that it should so long have escaped men's research."

112. Men have hitherto dwelt but little, or rather only

slightly touched upon experience, whilst they have wasted much time on theories and the fictions of the imagination.

113. He bids others to take courage from his own example, who, being much engaged in public business and not very strong in health, yet found time to work out and expound his new system of scientific investigation.

115. "Here, too," he says, "we should close the demolishing branch of our *instauration*, which is comprised in three confutations—(1) The confutation of *natural human reason* left to itself, (2) the confutation of *demonstration*, (3) the confutation of *theories* or received systems of philosophy and doctrines."

129. The empire of man over things is founded on the arts and sciences alone, for nature is only to be commanded by obeying her. . . . Only let mankind regain their rights over nature, assigned to them by the gift of God, and obtain that power whose exercise will be governed by right, reason, and true religion, and all will be well.

130. We are of opinion that if men had at their command a proper history of nature and experience, and would apply themselves steadily to it, and could bind themselves to two things, viz.—(1) To lay aside received opinions and notions; (2) to restrain themselves, till the proper season for generalization, they might, by the proper and genuine exertion of their minds, fall into our way of interpretation without the aid of any art.

BOOK II.

APHORISMS.

On the interpretation of nature, or the reign of man.

I. The aim and labour of human power is to generate a new nature or natures upon a given body; that of human knowledge is to discover the form or true difference of a given nature, or the nature to which such nature is owing, or the source from which it emanates.

II. True knowledge is that which is deduced from causes. The division of causes into four (by Aristotle) is not amiss—matter, form, the efficient, and end or final cause.

Although nothing exists in nature except individual bodies, exhibiting clear individual effects according to particular laws, yet in each branch of learning, that very law, its investigation, discovery, and development, are the foundation both of theory and practice. This *law* is what we understand by the term "*Form*."

III. He who is acquainted with "Forms" comprehends the unity of nature in substances apparently most distinct from each other. From the discovery of "Forms," therefore, results genuine theory and free practice.

IV. There is a most intimate connexion and almost an identity between the ways of *human power* and *human knowledge*. In order to generate and superinduce any nature upon a given body, *e.g.*, the yellow colour of gold upon silver, or tenacity in glass, we will lay this down as the genuine and perfect rule of practice—that it should be certain, free, and preparatory, or *having relation to practice*.

And this is the same thing as the discovery of a true "*Form*." For the "form" of any nature is such, that when it is assigned the particular nature infallibly follows.

Such then is our determination and rule with regard to a genuine and perfect theoretical axiom, *that a nature be found convertible with a given nature, and yet such as to limit the more known nature, in the manner of a real genus*. But these two rules, the practical and theoretical, are in fact the same.

VI. In all generations and transformations of bodies we must inquire what is in the act of being lost and escaping, what remains, what is being added, what is being diluted, what is being contracted, what is being united, what is being separated, what is continuous, what is broken off, what is urging forward, what impedes, what predominates, what is subservient, and many other circumstances.

Nor are these enquiries again to be made in the mere generation and transformation of bodies only, but in all other alterations and fluctuations we must in like manner enquire—what precedes, what succeeds, what is quick, what is slow, what produces, and what governs motion, and the like.

VII. Labour is well and usefully bestowed upon the anatomy of organised bodies, such as those of men and animals, which appears to be a subtile matter, and a useful examination of nature. It is obvious, and of ready access, when compared with the real anatomy of *latent conformation* in bodies which are considered similar, particularly in specific objects and their parts, as those of iron, stone, and the similar parts of plants and animals, as the root, the leaf, the flower, the flesh, the blood and bones, &c.

We must examine what spirit is in every body, what tangible essence; whether the spirit is copious and exuberant, or meagre and scarce, fine or coarse, &c., &c.

VIII. This method will not bring us to atoms—the theory of the Epicureans and others—which takes for granted the vacuum and the immutability of matter, neither of which hypotheses is correct, but to the real particles such as we discover them to be.

Let none be alarmed at vast numbers and fractions; for, in calculation, it is as easy to set down or to reflect upon a thousand as an unit, or the thousandth part of an integer as an integer itself.

IX. From the two kinds of axioms above specified arise the two divisions of philosophy and the sciences:—Physics and metaphysics.

Parallel to these, let there be two practical divisions; to physics that of mechanics, and to metaphysics that of magic in the purest sense of the term.

X. The object of our philosophy being thus laid down, we proceed to precepts.

The signs for the *interpretation of nature* comprehend two

divisions; the first regards the eliciting or creating of axioms from experiments; the second, the deducing or deriving of new experiments from axioms. The first admits of three subdivisions into ministrations. (1) To the senses. (2) To the memory. (3) To the mind or reason.

XI. The investigation of *forms* proceeds thus: a nature being given, we must first *present to the understanding* all the known *instances* which agree in the same nature, although the subject matter be considerably diversified. And this collection must be made as a mere history, and without any premature reflection, or too great degree of refinement. For instance: take the investigation of the form of heat.

Under the title—"Instances agreeing in the form of heat," he enumerates twenty-seven, indicates others not specified, and says, "We are wont to call this a *table of existence and presence*."

XII. He says, "We must next present to the understanding *instances* which do not admit of the given 'nature.'" "*Negatives*, therefore, must be classed under the affirmatives, and the want of the given nature must be inquired into more particularly in objects which have a very close connection with those others in which it is present and manifest. And this we are wont to term a *table of deviation or of absence in proximity*."

Thirteen pages are here occupied in contrasting objects in which the *form* of heat is absent with those twenty-seven in which it is present, *e.g.*, this first object in which the *form* is said to be present is "The rays of the sun, particularly in summer and at noon;" the first in which it is absent, which he styles the first negative subjunctive instance to the first affirmative instance, is "The rays of the moon, stars, and comets."

He then, under the title "Table of the degrees or comparative instances of heat," says, "We will first speak of those bodies which exhibit no degree of heat sensible to the touch, but appear rather to possess a potential heat, or disposition and preparation for it. We will then go on to others which are

actually warm to the touch, and observe the strength and degree of it."

To this investigation he devotes twelve pages, and concludes:—

XIV. "Anyone may readily see how poor we are in history, since, in the above *tables*, besides occasionally inserting traditions and report instead of approved history and authentic instances—always, however, adding some note if their credit or authority be doubtful—we are often forced to subjoin:—*Let the experiment be tried; let further inquiry be made.*"

XV. "We are wont to term the office and use of these three tables the *presenting a review of instances to the understanding*, and when this has been done, *induction* itself is to be brought into action."

"Man, in his investigations of nature, must proceed first by *negatives*, and then conclude with *affirmatives*, after every species of exclusion."

XVI. "The first work of legitimate induction in the discovery of *forms* is rejection, or the *exclusive instances* of individual natures. After an exclusion correctly effected, an affirmative *form* will remain as the residuum, solid, true, and well-defined, whilst all volatile opinions go off in smoke."

XVII. "The *form* of heat or *form* of light means no more than the *law* of heat or the *law* of light."

"When we say, for instance, in our investigation of the *form* of heat:—*Reject rarity, or rarity is not of the form of heat*, it is the same as if we were to say *man can superinduce heat on a dense body, or the reverse, man can abstract or ward off heat from a rare body.*"

He then gives, under the title "An example of the exclusive table or of the rejection of natures from the forms of heat," fourteen rejections, *e.g.* :—I. On account of the sun's rays *reject* elementary, or terrestrial, nature.

He admits that the table is imperfect, and alleges that with existing knowledge it cannot be made perfect.

With the aid of the three tables he proposes an attempt at the interpretation of nature in the affirmative, "Which attempt we are wont to call the *liberty of the understanding, or the commencement of interpretation, or the first vintage.*"

THE FIRST VINTAGE OF THE FORM OF HEAT:

He says, "From the instances taken collectively, as well as singly, the nature whose limit is heat appears to be *motion.*" By reference to the three tables he shows how this conclusion is arrived at, and says, "What we have said with regard to motion must be thus understood when taken as the genus of heat: it must not be thought that heat generates motion, or motion heat, though in some respects this be true, but that the very essence of heat, or the *substantial self* of heat, is *motion* and nothing else, limited, however, by certain *differences* which we will presently add, after giving some cautions for avoiding ambiguity."

He observes, *inter alia*.—"Heat is one thing, heating another:" and adds, "Laying aside all ambiguity, therefore, we must lastly consider the true *differences* which limit motion and render it the form of heat." He points out and discusses four differences, viz:—I. Heat is an expansive motion by which the body strives to dilate itself, and to occupy a greater space than before. II. Heat is an expansive motion tending towards the exterior, but at the same time bearing the body upwards. III. Heat is not a uniform expansive motion of the whole, but of the small particles of the body, and this motion being at the same time restrained, repulsed, and reflected, becomes alternating, perpetually hurrying, striving, struggling, and irritated by the percussion: which is the source of the violence of flame and heat. IV. This stimulating or penetrating motion should be rapid, and never sluggish, and should take place not in the very minutest particles, but rather in those of some tolerable dimensions.

From this first vintage the form or true definition of heat,

considered relatively to the universe and not to the sense, is briefly thus :—*Heat is an expansive motion restrained and striving to exert itself in the smaller particles.* The expansion is modified by *its tendency to rise through expanding towards the exterior* ; and the effort is modified by *its not being sluggish, but active and somewhat violent.*

With regard to the operative definition the matter is the same. *If you are able to excite a dilating or expansive motion in any natural body, and so to repress that motion and force it on itself as not to allow the expansion to proceed equally, but only to be partially exerted and partially repressed, you will, beyond all doubt, produce heat.*

XXI. He says, “ We must advance to the remaining helps of the understanding with regard to the *interpretation of nature*, and a true and perfect induction ; in offering which we will take the examples of cold and heat where tables are necessary, but where fewer instances are required, we will go through a variety of others ; so as neither to confound investigation nor to narrow our doctrine.”

He then proceeds to treat of what he styles ‘prerogative instances,’ which he divides into twenty-seven classes, viz. :—

- I. Solitary.
- II. Migrating.
- III. Conspicuous.
- IV. Clandestine.
- V. Constitutive.

In relation to ‘Constitutive instances,’ which he says we are wont to call ‘Collective instances,’ there are six lesser forms, as it were, of things which assist the memory, i.e., (i.) the separation of infinity ; (ii.) the connection of the mind with the senses ; (iii.) the impression in strong passion ; (iv.) the impression on the mind when pure ; (v.) the multitude of handles ; (vi.) anticipation. “Again,” he says, “for example’s sake, fit the required nature to ‘taste,’ or the power of tasting, the following instances are constitutive, viz. :—(i.) Those who do

not smell, being deprived by nature of that sense, they do not perceive or distinguish rancid or putrid food by their taste ; nor garlic from roses, and the like. (ii.) Again, those whose nostrils are obstructed by accident, such as a cold, do not distinguish any putrid or rancid matter from anything sprinkled with rose-water. (iii.) If those who suffer from a cold blow their noses violently at the very moment at which they have anything fetid or perfumed in their mouth, or on their palate, they instantly have a clear perception of the feter or perfume, &c., &c."

VI. Similar or proportionate instances, which we are also wont to call *physical parallels or resemblances*.

VII. Singular instances, which we are also wont to call *irregular or heteroclitc*.

VIII. Deviating instances.

IX. Bordering instances, which we are also wont to term *participants*.

X. Instances of power or the "fasces" (to borrow a term from the insignia of empire), which we are also wont to call 'wit,' or 'hands of man.'

He says (par. 32), "From the foregoing remarks it is clear that the five last species of instances—the similar, singular, deviating, and bordering instances, and those of power—should not be reserved for the investigation of any given nature, but a collection of them should be made at once, in the style of a particular history, so that they may arrange the matter which enters the understanding, and correct its depraved habit, for it is necessarily imbued, corrupted, perverted, and distorted by daily and habitual impressions."

XI. Accompanying of hostile instances.

XII. Subjunctive instances.

XIII. Instances of alliance or union.

XIV. Instances of the cross, borrowing our metaphor from the crosses erected where two roads meet to point out the different directions.

XV. Instances of divorce.

He says (par. 38), "Next follow five classes of instances, which we are wont to call by the general term of 'instances of the lamp,' or of 'immediate information.'"

XVI. Instances of door or gate.

XVII. Citing instances (to borrow a term from the tribunals) because they cite those things to appear which have not yet appeared. We are wont also to call them "invoking instances."

XVIII. The instances of the load, which we are also wont to call *itinerant* and *jointed* instances.

XIX. Supplementary, or Institutive instances, which we are also wont to call *instances of refuge*.

XX. Lancing instances, which we are wont to call "twitching instances." He says (par. 44), "We have now spoken of the instances which assist the senses, and which are principally of service as regards information, for information begins from the senses. But our whole labour terminates in practice, and as the former is the beginning, so is the latter the end of our subject. The following instances, therefore, will be those which are chiefly useful in practice. They are comprehended in two classes and are seven in number. We call them all by the general name of "*practical instances*."

XXI. Instances of the "*rod*," or "*rule*," which we are also wont to call the "*instances of corruption, or non ultra*."

XXII. Instances of course, which we are also wont to call "*water instances*," borrowing our expression from the "water hour-glass" employed by the ancients instead of those with sand.

XXIII. Instances of quantity, which we are also wont to call the "*doses of nature*," borrowing a word from medicine.

XXIV. Wrestling instances, which we are also wont to call "*instances of predominance*"—(a) resistance of matter, (b) motion of connexion, (c) motion of liberty, (d) motion of matter, (e) motion of continuity, (f) motion of acquisition or the

motion of head, (*g*) motion of greater congregation, (*h*) motion of lesser congregation, (*i*) magnetic motion, (*j*) motion of avoidance, (*k*) motion of assimilation, or, self-multiplication, or, simple generation, (*l*) motion of incitement, (*m*) motion of impression, (*n*) motion of configuration or position, (*o*) motion of transmission, (*p*) the royal or political motion, (*q*) the spontaneous motion of revolution, (*r*) the motion of trepidation, (*s*) the motion of repose or of abhorrence of motion.

He says (page 293), "We have now, therefore, exhibited the opinions or simple elements of the motions, tendencies, and active powers which are most universal in nature, and no small portion of natural science has been thus sketched out. We do not, however, deny that other instances can perhaps be added, and our divisions changed according to some more natural order of things, and also reduced to a less number," &c.

XXV. Suggesting instances.

XXVI. Generally useful instances. Under this heading he observes: "Man acts, then, upon natural bodies—besides merely bringing them together or removing them—by seven principal methods—(1) By the exclusion of all that impedes and disturbs; (2) by compression, extension, agitation, and the like; (3) by heat and cold; (4) by detention in a suitable place; (5) by checking or directing motion; (6) by peculiar harmonies; (7) by a seasonable and proper alternation, series, and succession of all these, or at least of some of them.

XXVII. The *magical instances*, a term which we apply to those where the matter or efficient agent is scanty or small in comparison with the grandeur of the work or effect produced, so that even when common they appear miraculous, some at first sight, others even upon more attentive observation.

Bacon concludes his "Novum Organum" thus:—"We must next, however, proceed to the supports and corrections of induction, and thence to concretes, the latent process, and latent conformations, and other matters, which we have enumerated in their order in the twenty-first aphorism, in order that, like

good and faithful guardians, we may yield up their fortune to mankind, upon the emancipation and majority of their understanding, from which must necessarily follow an improvement of their estate and an increase of their power over nature. For man, by the fall, lost at once his state of innocence and his empire over creation, both of which can be partially recovered even in this life, the first by religion and faith, the second by the arts and sciences. For creation did not become entirely and utterly rebellious by the curse, but in consequence of the divine decree. 'In the sweat of thy brow shalt thou eat bread,' she is compelled by our labours—not assuredly by our disputes or magical ceremonies—at length, to afford mankind in some degree his bread, that is to say, to supply man's daily wants."

SHAKSPEARE, WILLIAM.—1564-1616.*

Shakspeare, born at Stratford-upon-Avon in April, 1564, was the third of the eight children of John Shakspeare. Between the years 1555 and 1574, John appears to have been in easy circumstances, and to have filled various municipal offices in the borough, being in 1565 invested with an alderman's gown, in 1568 made high bailiff, and in 1571 sworn chief alderman for the coming year. In 1574, however, his affairs became entangled, and in 1585-6 to a distress; we find the return—"Joh'es Shackspere nihil habet potest levare" (Register of the Bailiff's Court). Whether he was or was not at one time a glover, and at another a butcher and dealer in wool, are matters of but little moment, and far from sufficiently established. We are told that, owing to the reduced circumstances of the father, William was early removed from the Free Grammar School of his native town to assist his father in his business, and, if tradition is to be credited, the young Shakspeare killed a calf in high style, and graced his slaughter by a speech. Aubrey tells us that he understood Latin pretty well, for he had been in his younger years a schoolmaster in the country.† His

* The matter of this sketch is derived from the works of Shakspeare; "The Life of Shakspeare, enquiries into the originality of his dramatic plots and characters, and essays on the ancient theatres and theatrical usages," by Augustine Skottowe—two vols. Longman, Hurst, Rees, Orme, Brown and Green, 1824; "Shakspeare's Legal Acquirements considered," by Lord Campbell—John Murray, 1859, etc., etc.; and Dodd's "Beauties of Shakspeare."

† Lord Campbell says, "It may likewise be observed that if Shakspeare really had been a schoolmaster, he probably would have had some regard for the 'order' to which he belonged." In all his dramas we have three schoolmasters only, and he makes them all exceedingly ridiculous. First we have Holofernes in "Love's Labour Lost," who is brought on the stage to be laughed at for his pedantry and his bad verses; then comes the Welshman, Sir Hugh Evans, in the "Merry Wives of Windsor," who, although in holy orders, has not yet learned to speak the English language; and last of all, Pinch, in the "Comedy of Errors," who unites the bad qualities of a pedagogue and a conjuror.

friend, Ben Jonson, tells us that he knew but little Latin, and less Greek, and says nothing of his ever having been a school-master. Others say that he was for some time a lawyer's clerk, and that view is favoured by Lord Campbell in his charming letter to J. Payne Collier, on "Shakespeare's Legal Acquirements considered."*

One thing is generally accepted, and that is, that when Shakspeare had barely attained the age of 18 he married Ann, the daughter of Richard Hathaway, a substantial yeoman in the neighbourhood of Stratford, his senior by 8 years, by whom he had several children, but who neither bettered his circumstances or social status. Indeed, we are told that his associates and habits at this period were not of the best, and that implica-

* His lordship says, (page 11) "Were an issue tried before me as Chief Justice at the Warwick assizes, 'whether William Shakspeare, late of Stratford-upon-Avon, gentleman, ever was clerk in an attorney's office in Stratford-upon-Avon aforesaid,'—I should hold that there is evidence to go to the jury in support of the affirmative, but I should add that the evidence is very far from being conclusive, and I should tell the twelve gentlemen in the box that it is a case entirely for their decision—without venturing even to hint to them for their guidance any opinion of my own. Should they unanimously agree in a verdict either in the affirmative or negative, I do not think that the court sitting *in banco* could properly set it aside and grant a new trial. But the probability is (particularly if the trial were by a special jury of Fellows of the Society of Antiquaries), that, after they had been some hours in deliberation, I should receive a message from them—'*there is no chance of our agreeing, and therefore we wish to be discharged*;' that having sent for them into court, and read them a lecture on the duty imposed upon them by law of being unanimous, I should be obliged to order them to be locked up for the night without eating or drinking, and 'without fire, candle-light excepted,' they would come into court next morning pale and ghastly, still saying '*we cannot agree*,' and that, according to the rigour of the law, I ought to order them to be again locked up as before till the close of the assizes, and then sentence them to be put into a cart, to accompany me in my progress toward the next town, to be shot into a ditch on the confines of the county of Warwick, etc."

From a love of the incredible, and a wish to make what he afterwards accomplished actually miraculous, a band of critics have conspired to lower the condition of his father, and to represent the son, when approaching man's estate, as still almost wholly illiterate.

His lordship quotes from twenty-three of Shakspeare's dramas, passages evidencing his legal knowledge, *vide 24 to p. 117* (John Murray, 1857).

tion in deer stealing and some ribald verses on Sir Thomas Lucy, the owner of the stolen deer, rendered it expedient for him to quit his native place for a time. One stanza of the verses runs thus :—

“A parliament member, a justice of peace,
At home a poor scarecrow, at London an asse.
If lowsie is Lucy, as some volke miscalle it,
Then Lucy is lowsie whatever befall it.
 He thinks himself greate,
 Yet an asse in his state.
We allowe by his ears but with asses to mata.
If Lucy is lowsie, as some volke miscalle it,
Sing lowsie Lucy, whatever befall it.”

The date of his departure is uncertain.

It is a fact worthy of note that the inhabitants of Stratford were great lovers of theatrical performances. No fewer than twenty-four visitations were made to them by companies of comedians between 1569, when Shakspeare was five years old, and 1587. Burbage and Green, whose names appear in the London companies of actors of the time, were townsmen of Stratford.

When Shakspeare left Stratford he went to London, and there embraced the occupation first of player, and after of writer, for the stage. To him belongs the glory of having raised the stage to the level of the most exalted pulpit as a teacher of things both human and divine.

“Finding tongues in trees, books in the running brooks,
Sermons in stones, and good in everything.”

“Each change of many coloured life he drew ;
Exhausted worlds, and then imagined new.
Existence saw him spurn her bounded reign,
And panting time tolled after him in vain.”

What then was the condition of the stage when his labours on its behalf commenced ? To understand it we must trace the history of modern popular amusements combined with instruction, for it is in that light that the mysteries or miracle plays must be regarded.

Fitzstephen, in his "Life of Thomas à Becket," asserts that "London had for its theatrical exhibitions, holy plays and the representations of miracles wrought by holy confessors." The Chester Mysteries were performed about 1270. Plays were performed at Clerkenwell by the parish clerks in 1397, and miracles were represented in the fields.

These mysteries were mostly founded on the characters and events of sacred writ. The Deity, Christ, and the Holy Ghost were personified; the Incarnation, the Passion, the Resurrection and Ascension were represented. In one scene Adam and Eve would appear naked and not ashamed, and in the next covered with fig leaves. The Devil was a particular favourite, usually displaying horns, a wide mouth, huge eyes and nose, a fiery beard, cloven feet, and a tail. Noah and his wife were represented as having an altercation in the Deluge, the former saying—"Welcome, wife, into this boat," the latter responding—"Take thou that for thy note," with of course the accompanying box on the ear. These productions, deemed serviceable to the interests of religion, were performed on festivals and saints' days. A pardon of one thousand days was awarded by the pope, and forty additional days by the bishop of the diocese, to all who resorted in the Whitsun week to the representation of the series of mysteries at Chester, beginning with the Creation and fall of Lucifer, and ending with the general judgment.

Monasteries, abbeys, and churches were the usual places of exhibition, and for some time the clergy were the only performers. By degrees, however, many of the parts fell to the lot of the scholars and choir boys, and on them the entire performance ultimately devolved. The clergy, by the Mexican Council, ratified at Rome in 1589, were prohibited from ever playing in mysteries again. The miracle plays and mysteries had, so far as England was concerned, become practically rare as early as 1500, and the Chester Mysteries appeared for the last time in 1574. The exhibition of Christ's Passion on Good Friday made its last appearance in the reign of James I.

The first departure of mysteries from the literal representation of scriptural and legendary stories was the introduction of allegorical characters as auxiliary to the main design. Sin, death, faith, hope, charity, and the leading passions or vices of mankind, personified, in time became the principal agents, and dramas so constructed were called Moralities, in contradistinction to Mysteries. These made their first appearance about the middle of the fifteenth century. Progress in popular knowledge ultimately drove both from the stage. Historical or romantic tales in their turn became—but when first is not clear—the subject of the drama. Appropriately habited historical and allegorical characters for a time represented stories in *dumb show*, on temporary movable stages in the streets. In the reign of Henry VI. dialogue and set speeches were added. Mysteries, moralities, and historical plays were, therefore, apparently, contemporaries, each in turn being the most favoured.

It is to the universities, inns of court, and public seminaries, however, that we are indebted for the first regular dramas which our language boasts. Greek and Roman plays were translated, and novel works constructed on their model. In 1561-2 the society of the Inner Temple witnessed the earliest English tragedy—"Gorboduck," or "Ferrex and Porrex"—the joint production of Sackvill, Lord Buckhurst, and Thomas Norton; and in 1566, at Christ's Church, Cambridge, appeared "Gammar Gurton's Needle," the first English comedy, a juvenile production of Bishop Still.

The leading characteristic of the early English tragedy in which the ancients were not imitated was exaggeration. The plot generally embodied some circumstance of extraordinary horror or wickedness, and all its accompaniments were attuned to a turgid and unnatural pitch. Situations such as could scarcely be produced were diligently sought after; passions were overstrained, language was inflated, metaphor ran wild, laughter might be excited, but the soul could not be reached.

Low buffoonery, obscenity, and rhodomontade substituted for wit, made comedy fare no better than the drama.

But the name of Marlow, who died in 1593, and whose first undoubted play was produced in 1590, must not be associated with those of Green, Lodge, Peele, Nash, Litz, and Kyd, the principal authors during the earliest age of the English drama, for he had the courage to discard much that disgraced the work of his predecessors, though he heaps crime on crime, and one disgusting incident upon another, yet his dramas exhibit many scenes both of deep pathos and true sublimity.

While the subjects of dramatic entertainments were sacred and the stage accessory to the views of the priesthood, churches and chapels and their immediate vicinities were deemed appropriate for dramatic exhibition, but as "mysteries" gave place to "moralities," and "moralities" to mere amusement, and the scholars and singing boys took the place of the clergy as performers, school-rooms, halls in the universities, the inns of court, the mansions of the nobility, the palaces of royalty, and temporary erections in the courtyards of inns, were substituted for the sacred edifices. In the case of courtyards of inns, the stage occupied one side of the quadrangle, the centre area and the balconies on the three remaining sides afforded ample accommodation for the audience.

The first building in England dedicated exclusively to the purposes of the drama, termed *the theatre*, was erected about 1570, in Blackfriars, near the Apothecaries' Hall. A play-house in Whitefriars, near Salisbury Court, another called the *Curtain*, in Shoreditch, were in existence in 1580, and not long after, the *Globe* was erected on Bank Side.

The form of the English theatre was derived from the courtyard of the inn, three sides were occupied by balconies appropriated to the reception of different classes of company, the fourth side formed the stage, and the centre area the pit, where the common people, called by Shakspeare the *groundlings*, and by Ben Jonson the *understanding gentlemen of the ground*,

stood to witness the exhibition. The upper balconies or scaffolds were occupied by persons of the same class. It is impossible to mark the introduction of scenery on the public stage at any specific period. In the forty years or more between the erection of the first playhouse and the death of Shakspeare, considerable advancement appears to have been made in scenic decoration. The transition of the drama from sacred to secular subjects effected a gradual change in the performers as well as in the place of performance. As the clergy receded the scholars and choir-boys advanced, and, under the designation of "children," became, in the reign of Elizabeth and James, proficient and popular performers. The masters of the schools and chapels were not only authorized by patent to educate children as comedians, but empowered to take up and retain by force such children as they might deem suitable to their purpose. This fact shows the light in which the new institution was regarded by the then authorities. As early as the reign of Henry VIII. there were legislative enactments, royal proclamations, and orders of privy council on the subject of the drama, at the same time favouring it and restraining irregularities. Among other matters, performances were prohibited on Sundays during Lent, and in times of common plague. The earliest mention of professional players appears in the time of Edward IV.; we then hear of the city actors. Henry VII. had a company of players. Henry VIII., Edward, and Mary granted licences to comedians for the performance of all kinds of stage plays. Elizabeth was a warm patron of the drama. It was her constant practice to summon the children of the public schools—St. Paul's, Merchant Taylors, Westminster, and Windsor—to entertain her with plays at court. In 1574 she granted to four of the Earl of Leicester's servants a licence for the performance of every species of dramatic entertainment throughout England, and in 1583 twelve of the principal actors were selected from the companies of various noblemen and sworn in as Her Majesty's servants, with an allowance of wages and liveries as grooms of the chamber.

That Shakspeare was himself at one period an actor is undoubted. Without authority to justify it, he is not unfrequently in modern times described as an indifferent player, but could that be? See what he makes Hamlet say to the players.

“Speak the speech, I pray you, as I pronounced it to you, trippingly on the tongue; but if you mouth it, as many of your players do, I had as lief the town-crier spoke my lines. Nor do not saw the air too much with your hand, thus:—but use all gently: for in the very torrent, tempest, and, as I may say, whirlwind of passion, you must acquire and beget a temperance, that may give it smoothness. O, it offends me to the soul to hear a robustious periwig-pated fellow tear a passion to tatters, to very rags, to split the ears of the groundlings; who, for the most part, are capable of nothing but inexplicable dumb show and noise; I would have such a fellow whipped for o’er doing Termagant; it out-herods Herod: pray you, avoid it. Be not too tame neither, but let your own discretion be your tutor; suit the action to the word, the word to the action, with this special observance, that you o’erstep not the modesty of nature; for anything so overdone is from the purpose of playing; whose end, both at the first, and now, was and is, to hold as ’twere, the mirror up to nature; to show virtue her own feature, scorn her own image, and the very age and body of the time, his form and pressure. Now this overdone, or come tardy off, though it make the unskilful laugh, cannot but make the judicious grieve; the censure of which one, must, in your allowance, o’erweigh a whole theatre of others. O, there be players that I have seen play,—and heard others praise, and that highly,—not to speak it profanely, that neither having the accent of Christians, nor the gait of Christian, Pagan, nor man, have so strutted and bellowed that I have thought some of nature’s journeymen had made men, and not made them well, they imitated humanity so abominably.”

Whether Shakespeare was or was not a distinguished actor

is of little moment; it is not to him as an actor that the whole civilized modern world has bowed down. It is to Shakspeare, the poet, philosopher, the lover of his kind, that the world has, does, and ever will look for faithful delineation of human character and grand conceptions of Deity.

Shakspeare's writings are divisible into three classes—his adaptations, his original plays, and his poems. It appears that as a writer, he, in the first instance, contented himself with making improvements on the works of his predecessors. In this respect he was not singular, Decker, Rowley, Hayward, Jonson, and other men of the same period and of undoubted talent, did the same. It was a comparatively easy method of making a little money.

With the first part of *Henry VI.*, Skottowe says "Shakspeare had undoubtedly little if anything to do; the second and third parts are vast improvements upon preceding dramatic productions, by no means destitute of merit." The following is the scene of Cardinal Beaufort's death as it appears in the original. (*Henry VI.*—2nd part, Act 3, Scene 3)—

CARD. "O Death, if thou wilt let me live but one whole year,
I'll give thee as much gold as will purchase such another island.

KING. O see, my lord of Salisbury, how he is troubled,
Lord Cardinal, remember, Christ must have thy soul.

CARD. Why dy'd he not in his bed?
What would you have me to do then?
Can I make men live whether they will or no?
Sirrah, go fetch me the strong poison, which
The 'pothecary sent me.
O, see where Duke Humphrey's ghost doth stand,
And stares me in the face. Look! look! comb down his hair.
So now, he's gone again. Oh! oh! oh!

SALIS. See how the pang of death doth gripe his heart.

KING. Lord Cardinal, if thou diest assured of heavenly bliss,
Hold up thy hand and make some sign to me.

[*The Cardinal dies.*]

Oh, see he dies, and makes no sign at all!
O God, forgive his soul!

SALIS. So bad an end did never none behold;
But as his death, so was his life in all.

KING. Forbear to judge, good Salisbury, forbear ;
For God will judge us all. Go take him hence,
And see his funerals be perform'd."

[*Exeunt*]

As altered by Shakspeare it runs thus—

CARD. "If thou be'st death, I'll give thee England's treasure,
Enough to purchase such another island,
So thou wilt let me live and feel no pain.

KING. Oh, what a sign it is of evil life,
When death's approach is seen so terrible !

WAR. Beaufort, it is thy sovereign speaks to thee.

CARD. Bring me unto my trial when you will.
Died he not in his bed ? Where should he die ?
Can I make men live whe'r they will or no ?
O ! torture me no more, I will confess—
Alive again ! Then show me where he is ;
I'll give a thousand pounds to look upon him—
He hath no eyes, the dust hath blinded them—
Comb down his hair ; look, look ! it stands upright,
Like lime-twigs set to catch my winged soul !
Give me some drink ; and bid the apothecary
Bring the strong poison that I bought of him.

KING. O thou eternal Mover of the heavens
Look with a gentle eye upon this wretch !
O, beat away the busy meddling fiend
That lays strong siege upon this wretch's soul,
And from his bosom purge this black despair !

WAR. See how the pangs of death doth make him grin.

SALIS. Disturb him not, let him pass peaceably.

KING. Peace to his soul, if God's pleasure be !
Lord Cardinal, if thou think'st on heaven's bliss
Hold up thy hand, make signal of thy hope—
He dies and makes no sign ; O God forgive him.

WAR. So bad a death argues a monstrous life.

KING. Forbear to judge, for we are sinners all—
Close up his eyes, and draw the curtain close,
And let us all to meditation."

In 1592, Shakspeare was well known as a writer for the stage, but no facts of the poet's life are involved in greater obscurity than the period when he commenced original work, the order in which he wrote, or which was the first of his original works.

The actor in Shakspeare's day was both denominated and regarded as a servant, and when his duties required his attendance at the mansion of his noble patron, the buttery was the place to which he was admitted.

The society of dramatic writers, on the other hand, was courted by the opulent, and the nobility adopted them as acquaintances, making them the objects of their bounty and esteem. It is highly probable that the question of status had somewhat to do with Shakspeare's retirement from the stage as actor. The accomplished Lord Southampton, son-in-law of Sir Thomas Heminge, the Queen's Treasurer of the Chamber, among whose duties was that of rewarding the court actors, at an early age contracted a warm and life-long attachment for Shakspeare. It was to him that Shakspeare dedicated his poem of *Venus and Adonis* in 1593, and his *Rape of Lucretia* in 1594. It is reported that his lordship at one time gave him £1,000 to enable him to complete a purchase. His purchases from time to time prove that he derived substantial sums from quarters other than his interest in the Globe Theatre or his literary works. We are told that the Earls of Pembroke and Montgomery vied with Lord Southampton in the patronage of Shakspeare, and that Elizabeth, and subsequently James, were his warm admirers. Indeed, it is to Elizabeth that the world is indebted for the *Merry Wives of Windsor*. She so thoroughly relished the humour in the two parts of *Henry IV.* as to induce her to command the appearance of the keen-witted voluptuary, Falstaff, under the influence of love. It is said that Shakspeare wrote the play in the short space of a fortnight. The delight afforded by Shakspeare to both his sovereigns was expressed by his warm friend and admirer, Ben Jonson, thus :—

“Sweet swan of Avon, what a sight it were
To see thee in our waters yet appear,
And mark those flights upon the bank of Thames,
That so did take Eliza and our James.”

Including those plays which he either re-wrote or so materi-

ally modified as to stamp them as his own, Shakspeare, according to Skottowe, was the undoubted author of thirty-four dramas between the period of his departure from, and his final return to, Stratford, which took place either in the year 1613 or 1614, where he died, on the 23rd of April, 1616, having exactly completed his fifty-second year.

It is a faculty of the poet, and still more of the stage, to give utterance to truths in a manner denied to the politician, the churchman, or the lawyer.

What is Shakspeare as a moralist and a philosopher? I take but a specimen pinch of the grains of gold from his ample store-house. His nuggets are too large for my little book.

There's a divinity that shapes our ends
Rough-hew them how we will.

Hamlet.—Act 5, Scene 2.

I hold the world but as the world, Gratiano ;
A stage, where every man must play a part.

Merchant of Venice.—Act 1, Scene 1.

All the world's a stage,
And all the men and women merely players ;
They have their exits and their entrances ;
And one man in his time plays many parts,
His acts being seven ages. At first the infant,
Mewling and puking in the nurse's arms ;
And then the whining school-boy, with his satchel,
And shining morning face, creeping like snail
Unwillingly to school ; and then the lover,
Sighing like furnace, with a woeful ballad
Made to his mistress' eyebrow ; then a soldier,
Full of strange oaths, and bearded like the pard,
Jealous in honour, sudden and quick in quarrel,
Seeking the bubble reputation
Even in the cannon's mouth ; and then the justice,
In fair round belly, with good capon lined,
With eyes severe, and beard of formal cut,
Full of wise saws and modern instances ;
And so he plays his part. The sixth age shifts
Into the lean and slipper'd pantaloon !
With spectacles on nose, and pouch on side ;
His youthful hose well served, a world too wide
For his shrunk shank ; and his big manly voice,

Turning again toward childish treble, pipes
 And whistles in his sound : Last scene of all,
 That ends this strange eventful history,
 Is second childishness and mere oblivion :
 Sans teeth, sans eyes, sans taste, sans everything.

As You Like It.—Act 2, Scene 7.

O, gentlemen, the time of life is short !
 To spend that shortness basely, were too long
 If life did ride upon a dial's point,
 Still ending at the arrival of an hour.

Henry IV.—Part 1, Act 5, Scene 2.

Virtue is bold, and goodness never fearful.

Measure for Measure.—Act 3, Scene 1.

What stronger breast-plate than a heart untainted !
 Thrice is he arm'd that hath his quarrel just ;
 And he but naked, though lock'd up in steel,
 Whose conscience with injustice is corrupted.

King Henry VI.—Part 2, Act 3, Scene 2.

Innocence shall make
 False accusation blush, and tyranny
 Tremble at patience.

Winter's Tale.—Act 3, Scene 2.

How far that little candle throws his beams !
 So shines a good deed in a naughty world.

Merchant of Venice.—Act 5, Scene 1.

Be thou blest, Bertram ! and succeed thy father
 In manners, as in shape ! thy blood and virtue,
 Contend for empire in thee ; and thy goodness
 Share with thy birth-right ! Love all, trust a few,
 Do wrong to none ; be able for thine enemy
 Rather in power than use ; and keep thy friend
 Under thy own life's key : be checked for silence,
 But never tax'd for speech.

All's Well that Ends Well.—Act 1, Scene 1.

Good name, in man and woman, dear my lord,
 Is the immediate jewel of their souls :
 Who steals my purse, steals trash ; 'tis something, nothing ;
 'Twas mine, 'tis his, and has been slave to thousands ;
 But he that filches from me my good name,
 Robs me of that which not enriches him
 And makes me poor indeed.

Othello.—Act 3, Scene 3.

O, you gods, think I, what need we have any friends if we should ne'er have
 need of them ? They were the most needless creatures living, should we ne'er

have use for them; and would most resemble sweet instruments hung up in cases, that keep their sounds to themselves. Why, I have often wished myself poorer, that I might come nearer to you. We are born to do benefits, and what better or properer can we call our own than the riches of our friends? O, what a precious comfort 'tis to have so many, like brothers, commanding one another's fortunes.

Timon of Athens.—Act 1, Scene 2.

To gild refined gold, to paint the lily,
To throw a perfume on the violet,
To smooth the ice, or add another hue
Unto the rainbow, or with a taper-light
To seek the beauteous eye of heaven to garnish,
Is wasteful and ridiculous excess.

King John.—Act 4, Scene 2.

It is the witness still of excellency,
To put a strange face on his own perfection.

Much Ado About Nothing.—Act 2, Scene 3.

Our remedies oft in ourselves do lie,
Which we ascribe to heaven: the fated sky
Gives us free scope; only, doth backward pull
Our slow designs when we ourselves are dull.

All's Well that Ends Well.—Act 1, Scene 1.

Brave conquerors! for so you are,
That war against your own affections,
And the huge army of the world's desires.

Love's Labour Lost.—Act 1, Scene 1.

Weariness

Can snore upon the flint, when resty sloth
Finds the down pillow hard.

Cymbeline.—Act 3, Scene 6.

Why, then 'tis none to you; for there is nothing either good or bad, but thinking makes it so.

Hamlet.—Act 2, Scene 2.

You have too much respect upon the world,
They lose it that do buy it with much care.

Merchant of Venice.—Act 1, Scene 1.

Study is like the heaven's glorious sun,
That will not be deep search'd with saucy looks;
Small have continual plodders ever won,
Save base authority from others' books.
These earthly godfathers of heaven's light,
That give a name to every fixed star,
Have no more profit of their shining nights
Than those that walk, and wot not what they are.

Too much to know, is to know nought but fame ;
And every godfather can give a name.

Love's Labour Lost.—Act 1, Scene 1.

For 'tis the mind that makes the body rich :
And as the sun breaks through the darkest clouds,
So honour peereth in the meanest habit.
What ! is the jay more precious than the lark,
Because his feathers are more beautiful ?
Or is the adder better than the eel,
Because his painted skin contents the eye ?
Oh, no, good Kate, neither art thou the worse
For this poor furniture and mean array.

Taming the Shrew.—Act 4, Scene 3.

You were used

To say—Extremity was the trier of spirits ;
That common chances common men could bear ;
That, when the sea was calm, all boats alike
Shew'd mastership in floating ; fortune's blows,
When most struck home, being gentle wounded, craves
A noble cunning : you were used to load me
With precepts, that would make invincible
The heart that conn'd them.

Coriolanus.—Act 4, Scene 1.

O, world, thy slippery turns ! Friends now fast sworn,
Whose double bosoms seem to wear one heart,
Whose hours, whose bed, whose meal, and exercise,
Are still together ; who twin, as 'twere, in love
Unseparable, shall, within this hour,
On a dissention of a doit, break out
To bitterest enmity : so, fellest foes,
Whose passions and whose plots have broke their sleep
To take the one the other, by some chance,
Some trick not worth an egg, shall grow dear friends,
And interjoin their issues.

Coriolanus.—Act 4, Scene 4.

A wretched soul, bruised with adversity,
We bid be quiet when we hear it cry ;
But were we burden'd with like weight of pain,
As much, or more, we should ourselves complain.

Comedy of Errors.—Act 2, Scene 1.

If to do were as easy as to know what were good to do, chapels had been churches, and poor men's cottages princes' palaces. It is a good divine that follows his own instructions : I can easier teach twenty what were good to be done, than be one of the twenty to follow mine own teaching.

Merchant of Venice.—Act 1, Scene 2.

. He cannot be a perfect man,
Not being try'd and tutor'd in the world :
Experience is by industry achieved,
And perfected by the swift course of time.

Two Gentlemen of Verona.—Act 1, Scene 3.

Give thy thoughts no tongue,
Nor any unproportion'd thought his act.
Be thou familiar, but by no means vulgar.
The friends thou hast, and their adoption tried,
Grapple them to thy soul with hooks of steel ;
But do not dull thy palm with entertainment
Of each new-hatch'd, unfledged comrade. Beware
Of entrance to a quarrel ; but, being in,
Bear't that thy opposer may beware of thee.
Give every man thine ear, but few thy voice ;
Take each man's censure, but reserve thy judgment.
Costly thy habit as thy purse can buy,
But not expressed in fancy ; rich, not gaudy,
For the apparel oft proclaims the man ;
And they in France, of the best rank and station,
Are most select and generous, chief in that.
Neither a borrower nor a lender be,
For loan oft loses both itself and friend ;
And borrowing dulls the edge of husbandry.
This above all,—to thine ownself be true ;
And it must follow, as the night the day,
Thou canst not then be false to any man.

Hamlet.—Act 1, Scene 3.

Nay, do not think I flatter :
For what advancement may I hope from thee
That no revenue hast but thy good spirits
To feed and clothe thee ? Why should the poor be flatter'd ?
No, let the candid tongue lick absurd pomp,
And crook the pregnant hinges of the knee,
Where thrift may follow fawning
. Give me that man
That is not passion's slave, and I will wear him
In my heart's core, ay, in my heart of hearts,
As I do thee.

Hamlet.—Act 3, Scene 2.

For aught I see, they are as sick that surfeit with too much as they that starve
with nothing : it is no mean happiness, therefore, to be seated in the mean ;
superfluity comes sooner by white hairs, but competency lives longer.

Merchant of Venice.—Act 1, Scene 2.

I know not. If they speak but truth of her,
 These hands shall tear her; if they wrong her honour
 The proudest of them shall well hear of it.
 Time hath not yet so dried this blood of mine,
 Nor age so eat up my invention,
 Nor fortune made such havoc of my means,
 Nor my bad life reft me so much of friends,
 But they shall find, awaked in such a kind,
 Both strength of limb, and policy of mind,
 Ability in means, and choice of friends,
 To quit me of them thoroughly.

Much Ado About Nothing.—Act 4, Scene 1.

Fiery? the fiery duke? Tell the hot duke that—
 No, but not yet: may be he is not well;
 Infirmary doth still neglect all office,
 Whereto our health is bound; we are not ourselves,
 When nature, being oppress'd, commands the mind
 To suffer with the body; I'll forbear;
 And am fallen out with my more headier will,
 To take the indisposed and sickly fit
 For the sound man.

King Lear.—Act 2, Scene 4.

The lunatic, the lover, and the poet,
 Are of imagination all compact:—
 One sees more devils than vast hell can hold;
 That is, the madman; the lover, all as frantic,
 Sees Helen's beauty in a brow of Egypt;
 The poet's eye, in a fine frenzy rolling,
 Doth glance from heaven to earth, from earth to heaven;
 And, as imagination bodies forth
 The forms of things unknown, the poet's pen
 Turns them to shapes, and gives to airy nothing
 A local habitation and a name.

A Midsummer Night's Dream.—Act 5, Scene 1.

The crow doth sing as sweetly as the lark,
 When neither is attended; and I think
 The nightingale, if she should sing by day,
 When every goose is cackling, would be thought
 No better a musician than the wren.
 How many things by season season'd are
 To their right praise and true perfection!

Merchant of Venice.—Act 5, Scene 1.

The web of our life is of a mingled yarn, good and ill together; our virtues would be proud if our faults whipped them not! and our crimes would despair if they were not cherished by our virtues.

All's Well that Ends Well.—Act 4, Scene 3.

True hope is swift, and flies with swallows wings,
Kings it makes gods, and meaner creatures kings.

Richard III.—Act 5, Scene 2.

The miserable have no other medicine,
But only hope.

Measure for Measure.—Act 3, Scene 1.

He that stands upon a slippery place
Makes nice of no vile hold to stay him up.

King John.—Act 3, Scene 4.

Alas, alas !

Why, all the souls that were, were forfeit once ;
And He that might the vantage best have took
Found out the remedy. How would you be,
If He, which is the top of judgment, should
But judge you as you are ? O ! think on that ;
And mercy then will breathe within your lips,
Like man new made.

Measure for Measure.—Act 2, Scene 2.

To climb steep hills,
Requires slow pace at first ; anger is like
A full-hot horse, who, being allowed his way,
Self-mettle tires him.

Henry VIII.—Act 1, Scene 1.

Trifles, light as air,
Are to the jealous confirmation strong
As proof of holy writ.

Othello, Act 3, Scene 3.

Ah, that deceit should steal such gentle shapes,
And with a virtuous visor hide deep vice !

Richard III.—Act 2, Scene 2.

Trust not those cunning waters of his eyes,
For villany is not without such rheum ;
And he, long traded in it, makes it seem
Like rivers of remorse and innocency.

King John.—Act 4, Scene 3.

Gratiano speaks an infinite deal of nothing, more than any man in all Venice ;
his reasons are as two grains of wheat hid in two bushels of chaff ; you shall
seek all day ere you find them, and when you have them they are not worth
the search.

Merchant of Venice.—Act 1, Scene 1.

O, dear discretion, how his words are suited !
The fool hath planted in his memory

An army of good words ; and I do know
 As many fools that stand in better place,
 Garnish'd like him, that for a tricky word
 Defy the matter.

Merchant of Venice.—Act 3, Scene 5.

I tell thee what, Antonio,
 I love thee, and it is my love that speaks ;
 There are a sort of men whose visages
 Do cream and mantle like a standing pond ;
 And do a wilful stillness entertain,
 With purpose to be dress'd in an opinion
 Of wisdom, gravity, profound conceit ;
 As who should say, "*I am Sir Oracle,
 And when I ope my lips let no dog bark !*"
 O, my Antonio, I do know of these,
 That therefore only are reputed wise
 For saying nothing !

Merchant of Venice.—Act 1, Scene 1.

The world is still deceiv'd with ornament.
 In law, what plea so tainted and corrupt,
 But, being season'd with a gracious voice,
 Obscures the show of evil ? In religion,
 What damned error but some sober brow
 Will bless it and approve it with a text,
 Hiding the grossness with fair ornament ?
 There is no vice so simple, but assumes
 Some mark of virtue on his outward parts.
 How many cowards, whose hearts are all as false
 As stairs of sand, wear yet upon their chins
 The beards of Hercules and frowning Mars ;
 Who, inward search'd, have livers white as milk,
 And these assume but valour's excrement,
 To render them redoubted !

Merchant of Venice.—Act 3, Scene 2.

As we do turn our backs
 From our companion thrown into his grave,
 So his familiars to his buried fortunes
 Slink all away ; leave their false vows with him,
 Like empty purses pick'd ; and his poor self,
 A dedicated beggar to the air,
 With his disease of all-shunned poverty,
 Walks, like contempt, alone.

Timon of Athens.—Act 4, Scene 2.

Ever note, Lucillius,
 When love begins to sicken and decay,
 It useth an enforced ceremony.
 There are no tricks in plain and simple faith ;
 But hollow men, like horses hot at hand,
 Make gallant show and promise of their mettle :
 But when they should endure the bloody spur,
 They fall their crests, and, like deceitful jades,
 Sink in the trial.

Julius Cæsar.—Act 4, Scene 2.

Be thou as chaste as ice, as pure as snow, thou
 Shalt not escape calumny.

Hamlet.—Act 3, Scene 1.

No, 'tis slander,
 Whose edge is sharper than the sword ; whose tongue
 Outvenoms all the worms of Nile ; whose breath
 Rides on the posting winds, and doth belie
 All corners of the world—kings, queens, and states,
 Maids, matrons—nay, the secrets of the grave,
 This viperous slander enters.

Cymbeline.—Act 3, Scene 4.

Blow, blow, thou winter wind,
 Thou art not so unkind
 As man's ingratitude ;
 Thy tooth is not so keen,
 Because thou art not seen,
 Although thy breath be rude.
 Heigh, ho ! sing, heigh, ho ! unto the green holly.
 Most friendship is feigning, most loving mere folly ;
 Then heigh, ho ! the holly !
 This life is most jolly.

Freeze, freeze, thou bitter sky,
 Thou dost not bite so nigh
 As benefits forgot :
 Though thou the waters warp,
 Thy sting is not so sharp
 As friend remember'd not.
 Heigh, ho ! sing heigh, ho ! &c.

As You Like It.—Act 2, Scene 7.

Now, by two-headed Janus,
 Nature hath fram'd strange fellows in her time :
 Some that will evermore peep through their eyes,
 And laugh, like parrots, at a bagpiper ;
 And other of such vinegar aspect,

That they'll not show their teeth in way of smile,
Though Nestor swear the jest be laughable.

Merchant of Venice.—Act 1, Scene 1.

Let me play the fool :

With mirth and laughter let old wrinkles come ;
And let my liver rather heat with wine,
Than my heart cool with mortifying groans.
Why should a man, whose blood is warm within,
Sit like his grandsire cut in alabaster ?
Sleep when he wakes ? and creep into the jaundice
By being peevish ?

Merchant of Venice.—Act 1, Scene 1.

There's nothing in this world can make me joy ;
Life is as tedious as a twice-told tale,
Vexing the dull ear of a drowsy man.

King John.—Act 3, Scene 4.

I have neither the scholar's melancholy, which is emulation ; nor the musician's, which is fantastical ; nor the courtier's, which is proud ; nor the soldier's, which is ambitious ; nor the lawyers, which is politic ; nor the lady's, which is nice ; nor the lover's, which is all these.

As You Like It.—Act 4, Scene 1.

So farewell to the little good you bear me.
Farewell, a long farewell to all my greatness !
This is the state of man : to-day he puts forth
The tender leaves of hope, to-morrow blossoms,
And bears his blushing honours thick upon him :
A third day comes a frost, a killing frost ;
And, when he thinks, good easy man, full surely
His greatness is a ripening, nips his root,
And then he falls, as I do. I have ventured,
Like little wanton boys that swim on bladders,
This many summers in a sea of glory ;
But far beyond my depth : my high-blown pride
At length broke under me, and now has left me,
Weary and old with service, to the mercy
Of a rude stream, that must for ever hide me.
Vain pomp and glory of this world, I hate ye ;
I feel my heart new open'd. O, how wretched
Is that poor man that hangs on princes' favours !
There is betwixt that smile he would aspire to,
That sweet aspect of princes, and their ruin,
More pangs and fears than wars or women have ;
And when he falls, he falls like Lucifer,
Never to hope again.

King Henry VIII.—Act 3, Scene 2.

All things that we ordain'd festival :
 Turn from their office to black funeral :
 Our instruments to melancholy bells ;
 Our wedding cheer to a sad burial feast ;
 Our solemn hymns to sullen dirges change ;
 Our bridal flowers serve for a buried corse,
 And all things change them to the contrary.

Romeo and Juliet.—Act 4, Scene 5.

Patience and sorrow strove
 Who should express her goodliest. You have seen
 Sunshine and rain at once ; her smiles and tears
 Were like a better way : Those happy smilets
 That played on her ripe lip, seem'd not to know
 What guests were in her eyes ; which parted thence,
 As pearls from diamonds dropp'd.—In brief, sorrow
 Would be a rarity most belov'd, if all
 Could so become it.

King Lear.—Act 4, Scene 3.

O, hateful error, melancholy's child,
 Why dost thou show to the apt thoughts of men
 The things that are not ? O, error, soon conceived,
 Thou never comest unto a happy birth,
 But kill'st the mother that engender'd thee.

Julius Cæsar.—Act 5, Scene 3.

I will instruct my sorrows to be proud :
 For grief is proud, and makes his owner stout.

King John.—Act 3, Scene 1.

Seems, madam ! nay, it is ; I know not seems.
 'Tis not alone my inky cloak, good mother,
 Nor customary suits of solemn black,
 Nor windy suspiration of forc'd breath,
 No, nor the fruitful river in the eye,
 Nor the dejected 'haviour of the visage.
 Together with all forms, modes, shows of grief
 That can denote me truly. These, indeed, seem,
 For they are actions that a man might play :
 But I have that within which passeth show ;
 These, but the trappings and the suits of woe.

Hamlet.—Act 1, Scene 2.

Let me wipe off this honourable dew
 That silverly doth progress on thy cheeks ;
 My heart hath melted at a lady's tears.
 Being an ordinary inundation ;

But this effusion of such manly drops,
 This shower, blown up by tempest of the soul,
 Startles mine eyes, and makes me more amaz'd
 Than had I seen the vaulty top of heaven
 Figur'd quite o'er with burning meteors.
 Lift up thy brow, renowned Salisbury,
 And with a great heart heave away this storm :
 Commend these waters to those baby eyes
 That never saw the giant world enraged,
 Nor met with fortune other than at feasts,
 Full warm of blood, of mirth, of gossiping.

King John.—Act 5, Scene 2.

No, no; 'tis all men's office to speak patience
 To those that wring under the load of sorrow ;
 But no man's virtue, nor sufficiency,
 To be so moral, when he shall endure
 The like himself : therefore give me no counsel :
 My griefs cry louder than advertisement.

Much Ado About Nothing.—Act 5, Scene 1.

Canst thou not minister to a mind diseas'd,
 Pluck from the memory a rooted sorrow,
 Raze out the written troubles of the brain,
 And, with some sweet oblivious antidote,
 Cleanse the stuff'd bosom of that perilous stuff
 Which weighs upon the heart ?

Macbeth.—Act 5, Scene 3.

Do not omit the heavy offer of it—sleep :
 It seldom visits sorrow ; when it doth,
 It is a comforter.

Tempest.—Act 2, Scene 1.

O heaven ! were man
 But constant, he were perfect : that one error
 Fills him with faults.

Two Gentlemen of Verona.—Act 5, Scene 4.

Friendship is constant in all other things,
 Save in the office and affairs of love ;
 Therefore, all hearts in love use their own tongues ;
 Let every eye negotiate for itself,
 And trust no agent ; for beauty is a witch,
 Against whose charms faith melteth into blood.

Much Ado About Nothing.—Act 2, Scene 1.

If lusty love should go in quest of beauty,
 Where should he find it fairer than in Blanch ?

If zealous love should go in search of virtue,
Where should he find it purer than in Blanch?
If love ambitious sought a match of birth,
Whose veins bound richer blood than Lady Blanch?

King John.—Act 2, Scene 2.

The honour of a maid is her name, and no legacy is so rich as honesty.

All's Well that Ends Well.—Act 3, Scene 5.

Mine honour's such a ring;
My chastity's the jewel of our house,
Bequeathed down from many ancestors,
Which were the greatest obloquy i' the world
In me to lose.

All's Well that Ends Well.—Act 4, Scene 2.

Love is a smoke, rais'd with the fume of sighs
Being purg'd, a fire sparkling in lovers' eyes:
Being vexed, a sea nourish'd with lovers' tears.
What is it else? A madness most discreet,
A choking gall, and a preserving sweet.

Romeo and Juliet.—Act 1, Scene 1.

He says he loves my daughter,
I think so too: for never gazed the moon
Upon the water as he'll stand and read,
As 'twere my daughter's eyes; and, to be plain,
I think there is not half a kiss to choose,
Who loves another best.

A Winter's Tale.—Act 4, Scene 3.

Maids, in modesty say "No" to that
Which they would have the profferer construe "Ay."
Fie, fie! how wayward is this foolish love,
That, like a testy babe, will scratch the nurse,
And presently, all humbled, kiss the rod.

Two Gentlemen of Verona.—Act 1, Scene 2.

What, keep a week away? Seven days and nights?
Eight score eight hours? and lovers' absent hours,
More tedious than the dial eight score times?
O weary reckoning!

Othello.—Act 3, Scene 4.

Ah me! For aught that ever I could read,
Could ever hear by tale or history,
The course of true love never did run smooth:
But, either it was different in blood,—
Or else misgrafted in respect of years,—

Or else it stood upon the choice of friends ;—
 Or, if there were a sympathy in choice,
 War, death, or sickness, did lay siege to it,
 Making it momentary as a sound,
 Swift as a shadow, short as any dream ;
 Brief as the lightning in the collied night,
 That in a spleen unfolds both heaven and earth,
 And ere a man hath power to say, "Behold !"
 The jaws of darkness do devour it up :
 So quick bright things come to confusion.

A Midsummer Night's Dream.—Act 1, Scene 1.

O, how this spring of love resembleth
 The uncertain glory of an April day :
 Which now shows all the beauty of the sun,
 And by and by a cloud takes all away !

Two Gentlemen of Verona.—Act 1, Scene 3.

If music be the food of love, play on ;
 Give me excess of it, that, surfeiting,
 The appetite may sicken, and so die.
 That strain again ;—it had a dying fall :
 Oh ! it came o'er my ear like the sweet south,
 That breathes upon a bank of violets,
 Stealing and giving odour.

Twelfth Night.—Act 1, Scene 1.

She never told her love,
 But let concealment, like a worm i' the bud,
 Feed on her damask cheek : she pin'd in thought,
 And, with a green and yellow melancholy,
 She sat, like Patience on a monument,
 Smiling at grief.

Twelfth Night.—Act 2, Scene 4.

Look thou be true : do not give dalliance
 Too much the rein : the strongest oaths are straw
 To the fire i' the blood : be more abstemious,
 Or else good night your vow !

Tempest.—Act 4, Scene 1.

Fie, fie ! unknit that threat'ning, unkind brow ;
 And dart not scornful glances from those eyes,
 To wound thy lord, thy king, thy governor :
 It blots thy beauty, as frosts do bite the meads ;
 Confounds thy fame, as whirlwinds shake fair buds ;
 And in no sense is meet or amiable.

A woman moved is like a fountain troubled,
 Muddy, ill-seeming, thick, bereft of beauty ;
 And while it is so, none so dry or thirsty
 Will deign to sip or touch one drop of it.
 Thy husband is thy lord, thy life, thy keeper,
 Thy head, thy sovereign ; one that cares for thee
 And for thy maintenance : commits his body
 To painful labour, both by sea and land ;
 To watch the night in storms, the day in cold,
 While thou liest warm at home, secure and safe :
 And craves no other tribute at thy hands,
 But love, fair looks, and true obedience ;
 Too little payment for so great a debt.
 Such duty as the subject owes the prince,
 Even such a woman oweth to her husband :
 And when she's froward, peevish, sullen, sour,
 And not obedient to his honest will,
 What is she but a foul contending rebel,
 And graceless traitor to her loving lord ?
 I am asham'd that women are so simple
 To offer war where they should kneel for peace ;
 Or seek for rule, supremacy, and away,
 When they are bound to serve, love, and obey.
 Why are our bodies soft, and weak, and smooth,
 Unapt to toil and trouble in the world,
 But that our soft conditions, and our hearts,
 Should well agree with our external parts ?

Taming the Shrew.—Act 5, Scene 2.

Earth, yield me roots ! (digging),
 Who seeks far better of thee, sauce his palate
 With thy most operant poison ! What is here ?
 Gold ? Yellow, glittering, precious gold ? No, gods,
 I am no idle votarist, roots, you clear heavens !
 Thus much of this will make black, white ; foul, fair ;
 Wrong, right ; base, noble ; old, young ; coward, valiant.
 Ha, you gods ! why this ? What this, you gods ?

Why this

Will lug your priests and servants from your sides ;
 Pluck stout men's pillows from below their heads :
 This yellow slave
 Will knit and break religions ; bless the accurs'd ;
 Make the hoar leprosy ador'd ; place thieves,
 And give them title, knee, and approbation,
 With senators on the bench : this is it,
 That makes the wappen'd widow wed again :

She, whom the spital-house and ulcerous sores
 Would cast the gorge at, this embalms and spices
 To the April day again. Come, damned earth,
 Thou common whore of mankind, that putt'st odds
 Among the rout of nations, I will make thee
 Do thy right nature.

Timon of Athens.—Act 4, Scene

How quickly nature falls into revolt
 When gold becomes her object !
 For this the foolish over-careful fathers
 Have broke their sleeps with thought, their brains with care,
 Their bones with industry ;
 For this they have engrossed and pil'd up
 The canker'd heaps of strange-achieved gold ;
 For this they have been thoughtful to invest
 Their sons with arts and martial exercises :
 When, like the bee, tolling from every flower
 The virtuous sweets ;
 Our thighs pack'd with wax, our mouths with honey,
 We bring it to the hive ; and like the bees,
 Are murder'd for our pains.

King Henry IV.—Part 2. Act 4, Scene 4.

'Tis gold
 Which buys admittance ; oft it doth ; yea, and makes
 Diana's rangers false themselves, yield up
 Their deer to the stand of the stealer ; and, 'tis gold
 Which makes the true man kill'd, and saves the thief ;
 Nay, sometime, hangs both thief and true man : What
 Can it not do, and undo ?

Cymbeline.—Act 2, Scene 3.

O, reason not the need ; our basest beggars
 Are in the poorest thing superfluous :
 Allow not nature more than nature needs,
 Man's life is cheap as beast's.

King Lear.—Act 2, Scene 4.

Will fortune never come with both hands full,
 But write her fair words still in foulest letters ?
 She either gives a stomach, and no food,—
 Such are the poor, in health ; or else a feast,
 And takes away the stomach,—such are the rich,
 That have abundance, and enjoy it not.

Henry IV.—Part 2. Act 4, Scene 4

For herein fortune shows herself more kind
 Than is her custom. It is still her use
 To let the wretched man outlive his wealth,
 To view with hollow eye and wrinkled brow,
 An age of poverty.

Merchant of Venice.—Act 4, Scene 1.

'Tis better to be lowly born,
 And range with humbler livers in content,
 Than to be perk'd up in a glist'ring grief
 And wear a golden sorrow.

Henry VIII.—Act 2, Scene 3.

Sir, I am a true labourer ; I earn that I eat, get that I wear ; owe no man hate, envy no man's happiness ; glad of other men's good, content with my harm : and the greatest of my pride is, to see my ewes graze and my lambs suck.

As You Like It.—Act 3, Scene 2.

I know the more one sickens, the worse at ease he is ; and that he that wants money, means, and content, is without three good friends : that the property of rain is to wet, and of fire to burn : that good pasture makes fat sheep, and that a great cause of the night is lack of the sun : that he that hath learned no wit by nature nor art may complain of good breeding, or comes of a very dull kindred.

As You Like It.—Act 3, Scene 2.

O, God ! methinks it were a happy life,
 To be no better than a homely swain ;
 To sit upon a hill as I do now
 To carve out dials quaintly, point by point,
 Thereby to see the minutes how they run :
 How many make the hour full complete.
 How many hours bring about the day,
 How many days will finish up the year,
 How many years a mortal man may live.
 When this is known, then to divide the times :
 So many hours must I tend my flock ;
 So many hours must I take my rest ;
 So many hours must I contemplate ;
 So many hours must I sport myself ;
 So many days my ewes have been with young ;
 So many weeks ere the poor fools will yean ;
 So many years ere I shall shear the fleece ;
 So minutes, hours, days, months, and years,
 Pass'd over to the end they were created,
 Would bring white hairs unto a quiet grave.
 Ah, what a life were this ! how sweet ! how lovely !

Gives not the hawthorn bush a sweeter shade
 To shepherds, looking on their silly sheep,
 Than doth a rich embroider'd canopy
 To kings, that fear their subjects' treachery?
 O yes, it doth; a thousand fold it doth.
 And to conclude,—the shepherd's homely curds,
 His cold thin drink out of his leather bottle,
 His wonted sleep under a fresh tree's shade,
 All which secure and sweetly he enjoys,
 Is far beyond a prince's delicates,
 His viands sparkling in a golden cup,
 His body couched in a curious bed.
 When care, mistrust, and treason, wait on him.

Henry VI.—Part III. Act 2, Scene 5.

Glory is like a circle in the water,
 Which never ceases to enlarge itself,
 Till, by broad spreading, it disperse to nought.

Henry VI.—Part I. Act 1, Scene 2.

Princes have but their titles for their glories,
 An outward honour for an inward toil;
 And, for unfelt imaginations,
 They often feel a world of restless cares:
 So that, between their titles and low name,
 There's nothing differs but the outward fame.

Richard III.—Act 1, Scene 4.

For who shall go about
 To cozen fortune, and be honourable
 Without the stamp of merit? Let none presume
 To wear an undeserved dignity.
 O, that estates, degrees, and offices,
 Were not deriv'd corruptly: and that clear honour
 Were purchased by the merit of the wearer!
 How many then should cover that stand bare?
 How many be commanded that command?
 How much low peasantry would then be glean'd
 From the true seed of honour! and how much honour
 Pick'd from the chaff and ruin of the times,
 To be new varnished!

Merchant of Venice.—Act 2, Scene 9.

Well, 'tis no matter, honour pricks me on. Yea, but how if honour prick me off when I come on? how then? Can honour set to a leg?—No. Or an arm?—No. Or take away the grief of a wound?—No. Honour hath no skill in surgery then?—No. What is honour?—A word. What is in that word?—

Honour. What is that honour?—Air. A trim reckoning! Who hath it?—He that died o' Wednesday. Doth he feel it?—No. Doth he hear it?—No. Is it insensible then?—Yes, to the dead. But will it not live with the living?—No. Why?—Detraction will not suffer it:—therefore, I'll none of it: honour is a mere escutcheon, and so ends my catechism.

Henry IV.—Part I. Act 5, Scene 1.

Look, as I blow this feather from my face,
And as the air blows it to me again,
Obeying with my wind when I do blow,
And yielding to another when it blows,
Commanded always by the greater gust;
Such is the lightness of you common men.

Henry VI.—Part III. Act 3, Scene 1.

No ceremony that to great ones 'longs,
Not the king's crown, nor the deputed sword,
The marshal's truncheon, nor the judge's robe,
Become them with one half so good a grace
As mercy does.

Measure for Measure.—Act 2, Scene 2.

The quality of mercy is not strain'd;
It droppeth as the gentle rain from heaven
Upon the place beneath. It is twice bless'd;
It blesseth him that gives, and him that takes:
'Tis mightiest in the mightiest; it becomes
The throned monarch better than his crown;
His sceptre shows the force of temporal power,
The attribute to awe and majesty,
Wherein doth sit the dread and fear of kings:
But mercy is above this sceptred sway;
It is enthroned in the hearts of kings;
It is an attribute to God himself:
And earthly power doth then show likest God's,
When mercy seasons justice.

Merchant of Venice.—Act 4, Scene 1.

Reason thus with life,—
If I do lose thee, I do lose a thing
That none but fools would keep; a breath thou art,
Servile to all the skyey influences
That do this habitation where thou keep'st
Hourly afflict: merely, thou art death's fool;
For him thou labourest by thy flight to shun,
And yet runn'st toward him still; thou art not noble;
For all the accommodations that thou bear'st

Are nursed by baseness : thou art by no means valiant ;
 For thou dost fear the soft and tender fork
 Of a poor worm : thy best of rest is sleep,
 And that thou oft provokest ; yet grossly fear'st
 Thy death, which is no more : thou art not thyself ;
 For thou exist'st on many a thousand grains
 That issue out of dust : happy thou art not ;
 For what thou hast not, still thou striv'st to get ;
 And what thou hast, forgett'st : thou art not certain ;
 For thy complexion shifts to strange effects,
 After the moon : if thou art rich, thou art poor ;
 For, like an ass whose back with ingots bows,
 Thou bear'st thy heavy riches but a journey,
 And death unloads thee : friend hast thou none ;
 For thine own bowels, which do call thee sire,
 The mere effusion of thy proper loins,
 Do curse the gout, serpigo, and the rheum,
 For ending thee no sooner : thou hast nor youth nor age ;
 But, as it were, an after dinner's sleep,
 Dreaming on both : for all thy blessed youth
 Becomes as aged, and doth beg the alms
 Of palsied eld ; and when thou art old and rich,
 Thou hast neither heat, affection, limb, nor *beauty*,
 To make thy riches pleasant. What's yet in this,
 That bears the name of life ? Yet in this life
 Lie hid more thousand deaths : yet death we fear,
 That makes these odds all even.

Measure for Measure.—Act 3, Scene 3.

To be, or not to be, that is the question :—
 Whether 'tis nobler in the mind, to suffer
 The slings and arrows of outrageous fortune ;
 Or to take arms against a sea of troubles,
 And by opposing, end them !—to die,—to sleep,—
 No more ;—and by a sleep, to say we end
 The heart-ache, and the thousand natural shocks
 That flesh is heir to,—'tis a consummation
 Devoutly to be wished. To die,—to sleep,—
 To sleep ! perchance to dream ;—ay, there's the rub,
 For in that sleep of death what dreams may come
 When we have shuffled off this mortal coil,
 Must give us pause ; there's the respect ;
 That makes the calamity of so long life :
 For who would bear the whips and scorns of time,
 The oppressor's wrong, the proud man's contumely,
 The pangs of despis'd love, the law's delay,

The insolence of office, and the spurns
 That patient merit of the unworthy takes,
 When he himself might his quietus make,
 With a bare bodkin? Who would fardel's bear,
 To grunt and sweat under a weary life;
 But that the dread of something after death,—
 The undiscovered country, from whose bourn
 No traveller returns,—puzzles the will;
 And makes us rather bear those ills we have,
 Than fly to others that we know not of?
 Thus conscience does make cowards of us all;
 And thus the native hue of resolution
 Is sicklied o'er with the pale cast of thought;
 And enterprises of great pith and moment,
 With this regard, their currents turn awry,
 And lose the name of action.

Hamlet.—Act 3, Scene 1.

Soft you; a word or two before you go.
 I have done the state some service, and they know it:
 No more of that:—I pray you, in your letters,
 When you shall these unlucky deeds relate,
 Speak of me as I am; nothing extenuate,
 Nor set down aught in malice: then must you speak
 Of one that loved not wisely, but too well;
 Of one not easily jealous, but, being wrought,
 Perplex'd in the extreme; of one whose hand,
 Like the base Judean, threw a pearl away
 Richer than all his tribe: of one whose subdu'd eyes,
 Albeit unused to the melting mood,
 Drop tears as fast as the Arabian trees
 Their medicinal gum. Set you down this:—
 And say, besides,—that in Aleppo once,
 Where a malignant and a turban'd Turk
 Beat a Venetian, and traduc'd the state,
 I took by the throat the circumcised dog,
 And smote him—thus. (*Stabs himself*).

Othello.—Act 5, Scene 2.

GALILEO (GALILEE) GALILEO.—1564-1642.*

"Galileo, born at Pisa on the 15th February, 1564, was descended from the noble family of Bonajuti. Although he exhibited an early passion for geometry, and had studied without a master the writings of Euclid and Archimedes, yet even after he was called to the mathematical chair at Pisa, in the twenty-fifth year of his age, he was more distinguished for his hostility to the Aristotelian philosophy than for his progress in original inquiry. In 1592 he was promoted to the same chair in Padua, where he remained for eighteen years, adorning the university by his talents, and diffusing around him a taste for science. With the exception of some minor contrivances, Galileo had made no discovery till he entered his forty-fifth year."

In 1609, the memorable year in which Kepler published his "New Astronomy," Galileo paid a visit to Venice, during which he heard of the telescope of Lippershey. The idea of so extraordinary an instrument at once filled his mind, and when he learned from Paris that it had an existence, he instantly resolved to possess it. The idea was the invention. Galileo's knowledge of optics was sufficient to satisfy him that a convex lens at one end of a tube, with a concave one at the other, must bring objects nearer to the eye. The lenses were placed in the tube, the astronomer looked into the concave lens, and saw the object before it "pretty large and pretty near him." This little toy, which magnified only *three* times lineally, and *nine* times superficially, he carried in triumph to Venice, where the chief magistrate obtained it in barter for the life possession of his professorship, and 480 florins as an increase of salary.

* This sketch is taken, with certain slight modifications, from the "Memoir of the Life, Writings, and Discoveries of Sir Isaac Newton," by Sir David Brewster, K.H.—Hamilton, Adams & Co., 1855. Vol. 1, p. 270, *et seq.*

The excitement produced on this occasion at Venice was of the most extraordinary kind ; and, on a subsequent occasion, when Sirturi had made one of the instruments, the populace followed him with eager curiosity, and at last took possession of the tube, till they had each witnessed its wondrous effects.

Galileo lost no time in availing himself of his new power. He made another telescope which magnified about eight or nine times, and sparing neither labour nor expense, he finally constructed an instrument so excellent as "to show things almost a thousand times larger (in surface) and above thirty times nearer to the eye."

There, is perhaps, no invention in science so extraordinary in its nature, and so boundless in its influence, as that of the telescope. To the uneducated man the power of bringing distant objects near to the eye must seem almost miraculous ; and to the philosopher who comprehends the principles upon which it acts, it must ever appear one of the most elegant applications of science.

To have been the first astronomer in whose hands such a power was placed, was a preference to which Galileo owed much of his reputation.

Before the telescope was directed to the heavens, it was impossible to distinguish a planet from a star. Even with his first instrument Galileo saw that Jupiter had a round appearance like the sun and moon, but on the 7th January, 1610, when he used a telescope of superior power, he saw three little bright stars very near him, *two* to the *right* and *one* to the *left* of his disc. Though ranged in a line parallel to the ecliptic, he regarded them as ordinary stars, but having on the 8th January accidentally directed his telescope to Jupiter, he was surprised to see the three stars to the west of the planet, and nearer one another than before, a proof that they had a motion of their own. This fact did not excite his notice, and it was only after observing various changes in their relative position, and discovering a fourth on the 13th January, that he was

enabled to announce the discovery of the four satellites of Jupiter.

In continuing his observations with the telescope, Galileo discovered that Venus had the same crescent phases as the waxing and the waning moon; that the sun had spots on his surface, which proved that he revolved round his axis; that Saturn was not round, but had handles attached to his disc; that the surface of the moon was covered with mountains and valleys, and that parts of the margin of her disc occasionally appeared and disappeared; that the milky-way consisted of numerous stars, which the unassisted eye was unable to perceive; and that the apparent size of the stars arose from irradiation, or a spurious light, in consequence of which they were not magnified by the telescope. These various discoveries furnished new arguments in support of the hypothesis of Copernicus; and we may now consider it as established by incontrovertible evidence, which ignorance or fanaticism only could resist, that the sun is placed in the centre of the System, in the focus of the elliptical, or in the centre of the circular orbits of the planets, and that, by some power yet to be discovered, he guides them in their course, while the Earth and Jupiter exercise a similar influence over the satellites which accompany them. But it is not merely from his astronomical discoveries, brilliant as they are, that Galileo claims a high place. His profound researches on mechanical science; his determination of the law of acceleration in falling bodies; and his researches respecting the resistance and cohesion of solid bodies, the motion of projectiles, and the centre of gravity of solids, have ranked him among the most distinguished of our mechanical philosophers. The great step, however, which he made in mechanics, was his discovery of the general laws of motion uniformly accelerated, which may be regarded as the basis of the theory of universal gravitation.

The current of Galileo's life had hitherto flowed in a smooth and undisturbed channel. His discoveries had placed him at

the head of the great men of the age, and, with an income above his wants, he possessed both the means and the leisure for prosecuting his studies. Anxious, however, to propagate the great truths which he discovered, and by force of reason to make proselytes of his enemies, he involved himself in disputes which tried his temper and disturbed his peace. When argument failed to convince his opponents, he wielded against them the powerful weapons of ridicule and sarcasm, and he had thus marshalled against himself and his opinions the Aristotelian professors, the temporizing Jesuits, the political churchmen, and that timid section of the community who trembled at innovation, whether it be in religion or in science. The party of Galileo who abetted him in his crusade against error, though weak in numbers, were strong in position and in zeal. His numerous pupils, occupying the principal chairs in the Italian universities, formed a devoted band who cherished his doctrines and idolized his genius. The enemies of religion followed the intellectual banner, and many princes and nobles who had smarted under ecclesiastic jurisdiction were willing to see it shorn of its power.

While these two parties were standing on the defensive, Galileo hoisted the first signal for war. In a letter to his friend and pupil, the Abbe Castelli, he proved that the scriptures were not intended to teach us science and philosophy, and that the expressions in the Bible were as irreconcilable with the Ptolemaic as with the Copernican system. In reply to this letter, Caccini, a Dominican friar, attacked Galileo from the pulpit, and so violent was his language, that Maraffi, the general of the Dominicans, expressed his regret that he should be implicated "in the brutal conduct of thirty or forty thousand monks."

Encouraged by this apology, Galileo launched another pamphlet addressed to the Grand Duchess of Tuscany, in which he supports his views by quotations from the Fathers, and by the conduct of the Roman pontiff himself, Paul III., in accepting

the dedication of Copernicus's work. It was in vain to meet such arguments by any other weapon than that of the civil power. It was deemed necessary either to crush the heresy or retire from the contest, and the church party determined to appeal to the Inquisition. Various circumstances concurred to excite the suspicions of Galileo, and, about the end of 1615, he set off for Rome, where he was lodged in the palace of the Tuscan ambassador. While Galileo was enjoying the hospitality of his friend, Caccini was preparing the evidence of his heresy, and in due time he was charged by the Inquisition with maintaining the motion of the earth and the stability of the sun ; with teaching and publishing this heretical doctrine, and with attempting to reconcile it to scripture. On the 25th February, 1615, the Inquisition assembled to take these charges into consideration, and, having no doubt of their truth, they desired that Galileo should be enjoined by Cardinal Bellarmine to renounce the obnoxious doctrines, and to pledge himself that he would neither teach, publish, nor defend them in future. In the event of his refusing to obey this injunction, it was decreed that he should be thrown into prison. Galileo acquiesced in the sentence, and on the following day he renounced before the Cardinal his heretical opinions, abandoning the doctrine of the earth's motion, and pledging himself neither to defend nor teach it either in his writings or his conversation.

Although Galileo had made a narrow escape from the grasp of the Inquisition, he left Rome, 1616, with a suppressed hostility against the church, and his resolution to propagate the heresy seems to have been coeval with the vow by which he renounced it. Although he affected to bow to the decisions of theology, he never scrupled, either in his writings or in his conversation, to denounce them with the severest invective. The Lyncean Academy, ever hostile to the church, encouraged him in this unwise procedure, and it was doubtless at their instigation that he took the daring step which brought him a second time to the bar of the Inquisition. Forgetting the

pledges under which he lay, the personal kindness of the Pope, and the pecuniary obligations which he owed him, he resolved to compose a work in which the Copernican system should be indirectly demonstrated. This work, entitled *The System of the World of Galileo Galilei, etc.*, was completed in 1630, but was not published till 1632, owing to the difficulty of obtaining a license to print it. It was dedicated to the Grand Duke of Tuscany; and while the decree of the Inquisition was referred to in insulting and ironical language, the Ptolemaic system—the doctrine of the church—was assailed by arguments which admitted of no reply. The Copernican doctrines, thus eloquently maintained, were eagerly received and widely disseminated, and the Church of Rome felt the shock thus given to its intellectual supremacy. Pope Urban VIII., though attached to Galileo, and friendly to science, was driven into a position from which he could not recede. The guardian of its faith, he mounted the ramparts of the church to defend the weakest of its bastions, and, with the artillery of the Inquisition, he silenced the batteries of its assailants. The Pope brought the obnoxious work under the eye of the Inquisition, and Galileo, advanced in years and infirm in health, was summoned before its stern tribunal. He arrived in Rome on the 14th February, 1633, and soon after his arrival he was kindly visited by Cardinal Barberino, the Pope's nephew, and other friends of the church, who, though they felt the necessity of its interference, were yet anxious that it should be done with the least injury to Galileo and to science. Early in April, when his examination in person took place, he was provided with apartments in the house of the Fiscal of the Inquisition; and to make this nominal confinement as agreeable as possible, his table was provided by the Tuscan ambassador, and his servant was allowed to sleep in an adjoining apartment. Even with these indulgences, however, Galileo could not brook the degradation under which he lay. A return of his complaint ruffled his temper, and made him impatient for his release; and

the Cardinal Barberino having been made acquainted with his feelings, liberated the philosopher on his own responsibility, and on the 30th April, after ten days' confinement, restored him to the hospitable roof of the Tuscan ambassador.

It has been stated on authority which is considered unquestionable, that, during his personal examination, Galileo was put to the torture, and that confessions were thus extorted which he had been unwilling to make. He acknowledged that the obnoxious dialogues were written by himself; that he had obtained a license to print them without informing the functionary who gave it, that he had been prohibited from publishing such opinions; and, in order to excuse himself, he alleged that he had forgotten the injunction under which he lay not to teach in any manner the Copernican doctrines. After duly considering the confessions and excuses of their prisoner, the Inquisition appointed the 22nd June as the day on which their sentence would be pronounced. In obedience to the summons, Galileo repaired to the Holy Office on the morning of the 21st. Clothed in penitential dress, he was conducted on the 22nd to the convent of Minerva, where the Inquisition was assembled, and where an elaborate sentence was pronounced, which will ever be memorable in the history of science. Invoking the name of our Saviour and of the Holy Virgin, Galileo is declared to be a heretic, in consequence of believing that the sun was the centre of the earth's orbit, and did not move from east to west, and defending the opinion that the earth moved and was not the centre of the world. He is, therefore, charged with having incurred all the censures and penalties enacted against such offences; but from all these he is to be absolved provided that, with a sincere heart and faith unfeigned, he abjures and curses the heresies he has maintained, as well as every other heresy against the Catholic Church. In order to prevent the recurrence of such crimes, it was also decreed that his work should be prohibited by a formal edict; that he should be imprisoned during the pleasure of the Inquisition; and that during

the next three years he should recite weekly the seven penitential psalms. This sentence was subscribed by seven cardinals, and on the same day Galileo signed the abjuration which the sentence imposed. Clothed in the sackcloth of a repentant criminal, Galileo, at the age of seventy, fell upon his knees before the assembled cardinals, and, laying his right hand on the holy evangelists, he invoked the Divine assistance in abjuring and detesting, and vowing never again to teach the doctrine of the earth's motion and of the sun's stability. He pledged himself never again to propagate such heresies, either in his conversation or in his writings, and he vowed that he would observe all the penances which had been inflicted upon him.

The sentence of abjuration was publicly read at several universities. At Florence it was promulgated in the church of Santa Croce, and the friends and disciples of Galileo were summoned to the ceremonial, in order to witness the degradation of their master. But though the church was thus anxious to maintain its authority, Galileo was personally treated with consideration, and even kindness. After remaining only four days in the dungeons of the Inquisition, he was, at the request of the Tuscan ambassador, allowed to reside with him in his palace, and when his health began to suffer, he was permitted to leave Rome and to reside with his friend Piccolomini, Archbishop of Sienna, under whose hospitable roof he completed his investigations respecting the resistance of solids. At the end of six months he was allowed to return to Florence, and before the close of the year he re-entered his house at Arcetri, where he spent the remainder of his days.

Although still a prisoner, Galileo had the happiness of being with his family and living under his own roof; but, like the other "spots of azure in his cloudy sky," it was ordained to be of short duration. It was now that he was justly characterized by the poet as "the starry Galileo, with his woes." His favourite daughter, Maria, who, along with her sister, had

joined the convent of St. Matthew, near Arcetri, hastened to the filial duties which she had so long been prevented from discharging. She assumed the task of reciting weekly the seven penitential psalms which formed part of her father's sentence, but she had scarcely commenced her domestic toils when she was seized with a dangerous illness, which in a few weeks proved fatal. Galileo was laid prostrate by this heavy and unexpected blow. He was inconsolable for the loss of his daughter, and disease in various forms shook the frail tenement which philosophy had abandoned. Time, however, the only anodyne of sorrow, produced its usual effects, and Galileo felt himself able to travel to Florence for medical advice. The Pope refused him permission, and he remained at Arcetri from 1634 to 1638, preparing for the press his "Dialogues on Motion," and corresponding with the Dutch Government on the proposal to find the longitude by the eclipses of Jupiter's satellites. Galileo, whose eyes had been gradually failing him since 1636, was struck with total blindness in 1638. "The noblest eye," as his friend, Father Castelli, expressed it, "was darkened—an eye so privileged and gifted with such rare powers, that it may truly be said to have seen more than the eyes of all that are gone, and have opened the eyes of all that were to come." To the want of sight was soon added the want of hearing, and in consequence of the mental labour to which he had been subjected, "his head," as he himself said, "became too busy for his body;" and hypochondriacal attacks, want of sleep, acute rheumatism, and palpitation of the heart, broke down his constitution. His last illness, after two months' continuance, terminated fatally on the 8th of January, 1642, when he was in the 78th year of his age.

KEPLER, JOHN.—1571-1630.*

John Kepler was born at the imperial city of Weil, in Wirtemberg, on 21st December, 1571. Although his early education was neglected, he made considerable progress in his studies at the preparatory school of Maulbronn, and when he took his degree of Master of Arts at the University of Tübingen, in 1591, he held the second place at the examination. While he was the mathematical pupil of Mästlin, he not only adopted his views of the Copernican system, but wrote an essay on the "Primary Motion," as produced by the earth's daily rotation. When the astronomical chair at Gratz, in Styria, fell vacant in 1594, Kepler accepted the appointment, although he knew little of mathematics. His attention, however, was necessarily turned to astronomy, and in 1595, when he enjoyed some professional leisure, he directed the whole energy of his mind to the number, the dimensions, and the motions of the orbits of the planets. After various fruitless attempts to discover some relation between the distances and magnitude of the planets, by assuming the existence of new planets in the wider spaces, he at last conceived the extraordinary idea that the distances of the planets were regulated by the six regular geometrical solids. "The *earth's* orbit," says he, "is the *sphere*; the measurer of all. Round it describe a *dodecahedron*, the circle including this will be the orbit of *Mars*. Round *Mars* describe a *tetrahedron*, the circle including this will be *Jupiter*. Describe a *cube* round *Jupiter*, the circle including this will be *Saturn*. Then inscribe in the orbit of the Earth an *icosahedron*, the circle described in it will be *Venus*. Describe an *octohedron* round *Venus*, the circle inscribed will be *Mercury*." This

* This sketch is taken from the "Memoirs of the Life, Writings, and Discoveries of Sir Isaac Newton," by Sir David Brewster, K.T.—Hamilton, Adams & Co., 1855. Vol. 1, p. 263, *et seq.*

singular law, rudely harmonizing with some of Copernicus's measures, would have failed, for want of solids, in its application to *Uranus* and *Neptune*; but it took possession of Kepler's mind, and he declared that he would not barter the glory of its invention for the whole electorate of Saxony. When Galileo's opinion of this hypothesis was requested by Kepler, he praised the ingenuity which it displayed; but when a copy of the *Prodromus* was presented to Tycho, he advised his young friend "first to lay a solid foundation for his views by actual observation, and by ascending from these to strive to reach the causes of things;" and there is reason to believe that, by the magic of the whole Baconian philosophy thus compressed into a nutshell, Kepler abandoned for a while his visionary speculations.

When driven by religious persecutions from the States of Styria, he accepted an invitation from Tycho to settle at Prague as his assistant. Here he was introduced to the Emperor Rodolph, and upon Tycho's death in 1601, he was appointed mathematician to the Emperor, a situation which he held during the successive reigns of Matthias and Ferdinand.

After devoting much of his time to the subjects of refraction and vision, and adding largely to our knowledge of both these branches of optics, he resumed his enquiries respecting the orbits of the planets. Possessed of the numerous and valuable observations of Tycho, he endeavoured to represent them by the hypothesis of a uniform motion in circular orbits; but in examining the orbit of Mars he found the deviations from a circle too great to be owing to errors of observation. He therefore compared the observations with various other curves, and was led to the fine discovery that Mars *revolved round the sun in an elliptical orbit in one of the foci of which the sun himself was placed*. By means of the same observations he computed the dimensions of the planet's orbit, and by comparing the times in which Mars passed over different parts of it, he found that they were to one another as the areas described by the lines drawn from the centre of the planet to the centre of the

sun, or, in more technical language, *that the radius vector, or line joining the sun and planet, describes equal areas in equal times.* These two brilliant discoveries, the first ever made in physical astronomy, were extended to all the other planets of the system, and were given to the world in his 'Commentaries on the Motions of the Planet Mars.'

Thus successful in his researches, and overjoyed with the result of them, Kepler renewed his attempts to discover the mysterious relation which he believed to exist between the mean distances of the planets from the sun. Distrusting his original hypothesis of the geometrical solids, he compared the planetary distances with the intervals of musical notes, but though he was supported in this notion by the opinions of Pythagoras, and even of Archimedes, his comparisons were fruitless, and he was about to abandon an enquiry which had more or less occupied his mind during seventeen years of his life.

After Kepler had refused to accept the mathematical chair at Bologna, which was offered to him in 1617, he seems to have resumed his speculations "on the exquisite harmonies of the celestial motions." On the 8th of March, 1618, he conceived the idea of comparing the powers of the different numbers which express the distances of the planets, with the powers of the different numbers which express their periods round the sun. He compared, for example, the squares and the cubes of the distances with the same powers of the periodic times, and he even made the comparison between the squares of the periodic times and the cubes of the distances; but having in the hurry and impatience of research, been led into an error of calculation, he rejected the last of these relations—the relation that was true—as having no existence in nature. Before a week, however, had elapsed, his mind reverted to the law which he had rejected, and, upon repeating his calculations and discovering his error, he recognised with rapture the great truth of which he had for seventeen years been in search, *that the periodic times of any two planets in the system are to one*

another as the cubes of their distance from the sun. This great discovery was published in 1619 in his "*Harmony of the World*," which was dedicated to James VI. of Scotland, and which is marked with all the peculiarities of the author. The passage which describes the feelings under which he recognised the truth of this third law is too instructive to be omitted from his history. "What sixteen years ago I urged as a thing to be sought, that for which I joined Tycho Brahe, for which I settled in Prague, for which I have devoted the best part of my life to astronomical contemplations, at length I have brought to light, and have recognised its truth beyond my most sanguine expectations. . . . It is now eighteen months since I got the first glimpse of light, three months since the dawn; a very few days since the unveiled sun—most admirable to gaze on—burst out upon me. . . . The die is cast, the book is written, to be read either now or by posterity, I care not which. It may well wait a century for a reader, as God has waited six thousand years for an interpreter of his works." As the planes of the orbits of all the planets, as well as the line of their apsides passed through the sun, Kepler could not fail to suspect that some power resided in that luminary by which the motions of the planets were produced, and he went so far as to conjecture that this power diminishes as the square of the distance of the body on which it was exerted; but he immediately rejects this law in favour of that of the simple distances. In the introduction to his commentaries on Mars he distinctly recognises the mutual gravitation of matter in the descent of heavy bodies to the centre of the earth, as the centre of a round body of the same nature with themselves. He maintained that two stones, situated beyond the influence of a third body, would approach like two magnets and meet at a point, each describing a space proportional to the mass of the other. He maintained, also, that the tides were occasioned by the moon's attraction, and that the lunar inequalities were owing to the joint action of the sun and earth. Our countryman, Dr.

Gilbert, in his celebrated book—*De Magnete*, published in 1600, had about the same time announced similar opinions on gravitation. He compares the earth's action upon the moon to that of a great loadstone ; and in his posthumous work, which appeared half a century afterwards, he maintained that the earth and moon act upon each other like two magnets, the influence of the earth being the greater on account of its superior mass. But though these opinions were a step in celestial physics, yet the identity of the gravity which is exhibited on the earth's surface by falling bodies, with that which guided the planets in their orbits, was not revealed either to the English or the German philosopher. It required more patience and thought than either could command, and its discovery was reserved for the exercise of higher powers. The misery in which Kepler lived stands in painful contrast with his arduous labours as an author, and his noble services to science. His small pension was ever in arrears, and when he returned to Silesia to spend the remainder of his days in retirement, his pecuniary difficulties became more embarrassing than before. He was compelled to apply personally for his arrears ; and, in consequence of the great fatigue which he suffered in his long journey to Ratisbon on horseback, he was seized with a fever, which carried him off on the 30th November, 1630, in the fifty-ninth year of his age.

Thus perished one of the noblest of his race, a victim of poverty, and a martyr to science.

HARVEY—1578-1658.*

William Harvey was born at Folkestone in Kent, April 1st, 1578. His schoolboy days, i.e., from his tenth to his fifteenth year, were spent at the King's School, Canterbury. On May 13th, 1593, he entered as a student at Caius College, Cambridge, where he took his degree of B.A. in 1597 and left the university. When nineteen years of age he visited France and Germany, and in the same year, 1597, entered the university at Padua, where he remained for about five years. He obtained his diploma there in 1602. Fabricius, of Aquapendente, was then his chief anatomical professor. After taking his degree, Harvey returned to England and obtained a similar distinction at Cambridge. In 1604 he was admitted a licentiate of the College of Physicians, and three years later a fellow. He married a daughter of Dr. Lancelot Browne, physician to Queen Elizabeth, when he settled in London and commenced practice. In 1609 he became physician to St. Bartholomew's Hospital. In 1615 he was appointed Lumleian lecturer, that is, to lecture at the college on anatomy and surgery, during which he developed, and to a certain extent propounded, the discovery which has immortalized his name. In 1628, his great work, the *Exercitatio anatomica de motu cordis et sanguinis*, appeared. It was published at Frankfort-on-the-Main. About this time he was appointed physician-extraordinary to James I. In 1630 he attended the young Duke of Lennox, a kinsman of Charles I., to the continent, and in 1632 was made physician-in-ordinary to His Majesty. In 1636 he accompanied Thomas, Earl of

* The matter of this sketch is derived from "The works of William Harvey, M.D., etc., translated from the Latin, with a life of the author by Robert Willis, M.D.—London: printed for the Sydenham Society, 1847." "The Harveian Oration for 1874, by Charles West, M.D.—Longmans, Green & Co." "The Harveian Oration for 1894, by J. Russell Reynolds, M.D., F.R.S.—J. & A. Churchill."

Arundel, during the nine months of his special embassy to Vienna. He was with the king at the battle of Edgehill in 1642, and afterwards at Oxford, where he was incorporated M.D. In 1651 he published his *Exercitationes de Generatione Animalium*. In 1657 he presented to the College of Physicians his paternal estate of £56 per annum, for the institution of an annual festival and lectures. During the latter part of his life he suffered much from gout. He died in the eightieth year of his age, June 3rd, 1658.

Such are the leading facts in the life of this great man, with their dates, but we cannot part with him so. Thanks to the institution founded by himself in 1657, there is an annual Harveian Oration delivered by one of his illustrious successors. The two before me are that of Dr. Charles West, delivered in 1874, and entitled "Harvey and His Times," and that of Dr. J. Russell Reynolds, delivered in 1884, and simply entitled "Harveian Oration." From these two orations I propose to cull a few points of interest. The initial and page in each case indicates the source. Dr. West says:—"Never could he forget those two cloudless July days (1588) just before he went to the King's School at Canterbury, when all Folkestone gathered on the cliffs to watch the contest between the Armada of Spain and the few ships which then represented the navy of England." (W., p. 15).

To Harvey, no doubt, the great attraction of Padua was its anatomical school, which then presented opportunities for study greater than any other in Europe. The statutes of the university prescribed that twice during the academical session, which extended from St. Luke's Day to the Feast of the Assumption on August 15th, the whole human body should be publicly dissected by the professor of anatomy. Nor were the means neglected to ensure the fulfilment of this regulation; for it was provided that, if no criminals were executed within the province of Padua, the university should have the power of claiming bodies from Venice, or elsewhere within the Venetian State.

His diploma of Doctor of Medicine, which he obtained at Padua at the early age of twenty-four, is not worded in the common language of those documents—laudatory, of course, though they always are—but well-nigh exhausts the Latin language of its superlatives, and speaks of how all listened with intensest pleasure to his clear and most appropriate answers, and how most astonishingly and most excellently (*Mirifice et excellentissime*) he had borne himself. (W., p. 12).

Between Fabricius, honoured by and adding honour to the dignity of a knight of St. Mark, and Harvey, a fast friendship seems to have sprung up, or rather, that loving relationship which is so beautiful between the youth scarce twenty and the old man of well-nigh seventy years. (W., p. 22). The name of Fabricius is the first subscribed to Harvey's diploma. (W., p. 23). Harvey was not one of those who accept as "truth," that is to say, "fact," all that they are told, even by the most renowned of their teachers. He said, "He who truly desires to be informed must be held bound to look for himself. . . . It is our duty to approve or disapprove, to receive or reject everything only after the most careful examination, . . . to examine, to test whether anything has been well or ill advanced, to ascertain whether some falsehood does not lurk under a proposition. . . . It is imperative on us to bring it to the proof as such, and to admit it or reject it on the decision of such." (R., p. 30). Harvey taught the doctrine of the circulation of the blood as early as the year 1615, when he held the office of Lumleian Lecturer. (W., p. 39).

Nothing tried him half so much as the loss of time in defending his discoveries, or in answering captious critics, to whom he yet was always ready to give credit for candour and a love of truth like his own. (W., p. 12). Harvey had travelled much, and the few descriptive touches that we meet with in his writings are most picturesque and life-like. But they are brought forward merely to illustrate some points in his scientific researches. His account of the Bass Rock, and of the countless birds that

inhabit it, more numerous than the stars that appear on the unclouded moonless sky, is so true to nature, that it at once recalls to all, who were so fortunate as to see it, Graham's picture in the exhibition of our Royal Academy three years ago (1871). And yet this minuteness of observation, this beauty of description, are but subordinate to a detail of the process by which the hard shell is formed round the egg. And so, a few paragraphs further on, we find ourselves on the tiptoe of expectation when we come to a sentence which begins, "When I was in Venice in former years," but as we read on in hopes to find some record of the impression left on Harvey's mind by that wonderful city, it turns out that the place is mentioned merely because it was there that Aromatari, a learned physician, showed him a specimen of unusually exuberant vegetable growth, as illustrative of the influence of soft air, mild climate, and bright sky on the development of plants. (W., pp. 6-7).

He was a little dark complexioned man, with keen black eyes and curling hair, which age changed from black to snowy white; rapid in utterance, hasty in manner, choleric in his younger days, and used then in discourse with anyone to play unconsciously with the handle of a small dagger which he wore. (W., p. 11).

He seems to have found his chief relaxation when alone in Virgil. . . . "He has a devil," Harvey was more than once heard to say as he flung the book from him to the other side of the room, and turned again to the researches from which the poet and enchanter had wiled him too long away. (W., p. 12).

It would take too long to enumerate all the anatomical discoveries that were made during the fifty years before the time of Harvey. I will therefore mention those only which have reference to the circulatory system. During this time the relations of the *vena cava* to the heart on the one hand, and to the portal vein on the other, were ascertained. The existence and distribution of the valves of the veins were made out, and

their purpose was conjectured, though these conjectures were to a great degree erroneous. The tricuspid valve of the heart was described, and its uses were correctly explained. The absence of any direct communication between the two sides of the heart was placed beyond reasonable doubt, and a theory was thus disposed of which had been built in part (as so many false theories are) on incorrect observation, though it rested in part also on over hasty inference from a condition which really exists in the fetus. And lastly, and beyond all other points in importance, the smaller, or pulmonary circulation, was discovered and correctly expounded, though some erroneous hypotheses, the figments of mere fancy, the ghosts of old traditions, still hung about and obscured the simple truth. (W., p. 33).

The following may be taken as a fair summary of what was known with reference to the circulation of the blood before Harvey's great discovery. The blood was known to pass from the right ventricle and circulate through the lungs, returning in part at least to the left side of the heart. But the current opinion was that not all the blood, but only the thicker and impurer part followed this course, while some of the purer still remained in the right side for further use, and a portion of it transuded through the minute apertures, which imagination still feigned, though sense could not discern them, to the left side of the heart. Here, as in an alembic, the purer blood mixed, as was supposed, with a certain vital spirit with which the lungs had impregnated it, was transformed or distilled into that æther of twofold composition, one part sanguineous, one aerial, which it was the special office of the arteries to convey, informing the whole body with life, while the veins supplied the blood which subserved the humbler purposes of nutrition. Between these two sets of vessels there was supposed to be no direct communication—no circulation in the proper sense—but in each there went on a perpetual flux and reflux, an ebbing and a flowing tide, a tide—so influenced by the same causes as govern the tides of the ocean; and hence, even in ordinary

functions of the body, the aspect of the moon, the conjunctions of the stars, controlled or at least modified them all. The heart, too, was not only the generator of vital heat and seat of life, but the source of the passions, and, when unrenewed, the dwelling place of evil—its seat and throne. (W., pp. 35-6).

Harvey's great discovery was two-fold.

First.—After corroborating the statements of those who had denied either that blood transudes through the walls of the ventricles, or that the pulmonary veins bring back to the left side of the heart air commingled with the blood, he asserts that the left ventricle has no other function than that of impelling the blood brought to it through the arteries, which themselves contain blood and nothing else,—not air, nor vital spirit, but blood purified by its passage through the lungs, and so made apt for the nourishment of the whole body: and

Second.—That while the arteries thus distribute everywhere the fresh pure blood, the veins with which they communicate bring back that same blood, no longer pure, to the right side of the heart, whence it is once more transmitted to the lungs, thence carried again revived to the left ventricle, and then once more distributed throughout the body, its changes not being those of an ebbing and a flowing tide, but the ceaseless current of an onward rushing river. (W., pp. 37-8).

Harvey admired the skill of the artificer revealed by his researches as it had never been before; but of the practical result of those researches he saw but little; and could never have imagined with what accuracy we can now, thanks to his labour, ascertain the nature and seat of disease in each of the four cavities of the heart itself, presage its course, and even, where we cannot cure, obtain at least an euthanasia for our patient, and rob death of half its terrors by depriving it of more than half its suffering. (W., p. 47).

For the last twenty years of his life Harvey had no settled home of his own, but lived about at his brother Eliab's houses either in town or country; and the gossip Aubrey, a sort of

seventeenth century Boswell—but wanting Boswell's reverence for what was higher and nobler than himself—tells us how Harvey “sat for hours on the leads of Cockaine House, where he was used to contemplate, or at Coombe, in Surrey, where he had caves made in the earth, in which in summer he delighted to meditate.” (W., p. 8).

The genial, loving character of the man is not the least striking of his many admirable qualities; one instance of it is his institution of the annual feast and oration of the college. After ordering a general feast to be kept within the college once every year for such fellows as shall please to come, he adds:—“And on the day when such feast shall be kept, some one person—member of the said college, to be from time to time appointed by the president, shall make an oration publicly in the said college, wherein shall be a commemoration of all the benefactors of the said college by name, and what in particular they have done for the benefit of the college; with an exhortation to others to imitate those benefactors, and to contribute their endeavours for the advancement of the society according to the example of those benefactors; and with an exhortation to the fellows and members of the said college to search and study out the secrets of nature by way of experiment, and also for the honour of the profession to continue mutual love and affection amongst themselves, without which neither the dignity of the college can be preserved, nor yet particular men receive the benefit of their admission into the college which they might expect, ever remembering that ‘*concordiâ res parvæ crescunt, discordiâ magnæ dilabuntur.*’” (W., p. 2.)

The year before his death, when he presented to the college the title-deeds of the estate they still possess, Harvey entertained all the fellows at a banquet. (W., p. 13.)

His sympathy and love for his fellow-men were ever keen and ever active. (W., p. 13.)

It would not be easy to draw a better picture of the man, his labour, his contentions, and his frame of mind in his later

days, than that presented in his own words, addressed to his friend Sir George Ent. They are these:—"And would you be the man," said Harvey, smiling, "who should recommend me to quit the peaceful haven where I now pass my life, and to launch again upon the pathless sea? You know full well what a storm my former lucubrations raised. Much better is it oftentimes to grow wise at home and in private than by publishing what you have amassed with infinite labour, to stir up tempests that may rob you of peace and quiet for the rest of your days." (W., p. 41.)

Dr. Reynolds says:—"Harvey's work of discovery, like that of all great discoveries—into whatever reach of knowledge and of thought they may have broken—was not unprepared. Men were, in his time, eagerly looking for a light that they felt sure was coming, and there were streaks of dawn in the eastern sky that led them to find the man, and the truth for which they had been seeking, so that what before had been mysterious was now clear; what had been dark, was now illumined; what they had sought for, now they found." (R., p. 6.)

If we would appreciate the value of his work we must read the writings, and become familiar with the beliefs current at his time. We may find their echoes in his replies to his opponents, and see quite plainly that the notions he had to contend with were not even "guesses at truth," but often merely pompous assertions of meaningless nothings—"traditions vainly received,"—but yet held with the cramp-like grasp of drowning men who clutch at straws, and yet uttered with the confidence of those, who might be supposed, from the loudness of their cry, to be standing firmly and steadily on solid ground.

Those who held them were quite incapable of perceiving that they were empty dogmata, without one particle of substance in their constitution, or one square inch of fact upon which to plant themselves. They seem so nonsensical now, that it is almost impossible for us to imagine Harvey caring to reply to them. But, in his day, they were very real, very vexatious, and very hard to bear. To us, they are less than distorted dwarfs,

but to him, they were giants whom he had to fight, and with whom he did wrestle hard. (R., p. 7, *et seq.*)

Great men have always foreseen much; or, at all events, have said or seen things of which they, perhaps, did not, and could not fully appreciate the meaning. They have scattered germs of thought around them, as they passed through the varying fields of life, to the point, or end that their determination impelled them to attain; and some of these seeds of future discovery have fallen on good ground and brought forth fruit. There is here some instance of the process of "Evolution" in regard to scientific discovery. Harvey reaped much that he had not sown, but he sowed much more which others, after him, might reap. (R., p. 9.)

As a means of estimating the largeness of Harvey's mind, and the wide range of his vision, and how much there was that he "saw," but scarcely can be said to have "looked at," let me recall to your notice some of the more interesting of his *provisions*. . . . We find him saying:—"In general, the first processes of Nature lie hid, as it were, in the depths of night, and, by reason of their subtlety escape the keenest reason no less than the most piercing eye." In another paper:—"All living things . . . derive their origin from a certain primary something or primordium, which contains within itself both the 'matter' and the 'efficient cause'; and so is, in fact, the matter out of which, and that by which, whatsoever is produced is made." Again:—"It appears advisable to me to look back from the perfect animal, and to inquire by what process it has arisen and grown to maturity, to retrace our steps from the goal to the starting-place, . . . so that we shall perceive from what primary matter, and from what efficient principles, and in what way from these this plastic form proceeds." . . . Man comes into the world naked and unarmed, . . . as if Nature had desired that he should be guided by reason rather than be driven by force; therefore did she endow him with understanding, and furnish him with hands that he might himself

construct what was necessary to his clothing and protection. To those animals to which Nature has given vast strength, she has also presented weapons in harmony with their powers; to those that are not thus vigorous, she has given ingenuity, cunning, and singular dexterity in avoiding injury; . . . the subject of dispute being no empty or vainglorious matter, but the *perpetuation of the stock* in this line or in that; as if Nature intended that he who could best defend himself and his, should be preferred to others for the continuance of the kind. (R., p. 10.)

Dr. Reynolds adds:—"In the passages just read, we have, as it appears to me, very much the same ideas as are now conveyed by the terms 'protoplasm,' the relation of man and animals to their environments, and the doctrine of the 'survival of the fittest.'" (R., p. 11.)

"Let physicians cease to wonder," says Harvey, "at the manner in which epidemic, contagious, and pestilential diseases scatter their seeds and are propagated to a distance through the air, or by some 'fomes,' producing diseases like themselves, *in bodies of a different nature*, and in a hidden fashion, *silently multiplying themselves by a kind of generation*, until they become so fatal, and, with the permission of the Deity, spread destruction far and wide among man and beast; since they will find far greater wonders than these taking place daily in the generation of animals." (R., p. 14.)

There are some actions and motions the government or direction of which is not depended on the brain, . . . there is a certain sense or form of touch, meaning contact, or impression—which is not referred to the common sensorium, nor in any way communicated to the brain, so that we do not perceive by this sense, *i.e.*, impression, that we feel, . . . and this sense we therefore distinguish from the proper animal sense. . . . Such a sense do we observe in zoophytes, or plant animals, in sponges, the sensitive plant, etc. . . . So also do certain natural actions take place in the embryo, and even in ourselves,

without the agency of the brain, and a certain sensation takes place without consciousness. (R., p. 16.)

"The eternity of things is connected with the reciprocal interchange of generation and decay ; and as the sun, now in the east, and then in the west, completes the measure of time by his ceaseless revolutions, so are the fleeting things of mortal existence made eternal through incessant change ; and kinds and species are perpetuated, though individuals die." (R., p. 18.)

"It were disgraceful, . . ." said Harvey, "with this most spacious and admirable realm of nature before us, . . . did we take the reports of others upon trust. . . . Nature is herself to be addressed ; and the paths she shews us are to be boldly trodden." (R., p. 28.)

"Again, the doctrines inculcated on the subject of the humours, and which, as being entertained by the ancients, Fabricius regards as certain truths, requiring no further proofs, are inconsistent and false." (R., p. 29.)

Harvey could on occasion say biting things : for example, in his second disquisition to his friend John Riolanus, he says, "It cannot be helped that dogs bark, and vomit their foul stomachs, or that cynics should be numbered among philosophers ; but care must be taken that they do not bite or inoculate their mad humour, or with their dogs' teeth gnaw the bones and foundations of truth." (R., p. 30.)

"Nature," said Harvey to Ent, "is the best and most faithful interpreter of her own secrets ; and what she presents either more briefly or obscurely in one department, that she explains more fully and clearly in another. . . . Truth scarce wants an advocate." (R., p. 32.)

Dr. Ent said, "Our Harvey rather seems as though discovery were natural to him ; a thing of ease, and, of course, a matter of ordinary business ; though he may, nevertheless, have expended infinite labour and study on his work." (R., p. 27.)

"If," says Dr. Reynolds, "we would now appreciate the

work of Harvey, let us for a moment try to eliminate from our knowledge the fact of 'the circulation of the blood,' and then imagine ourselves to be face to face with the diseases that we are daily treating; with fever, apoplexy—hæmorrhagic, embolic, or diathetic; with dropsy; with cardiac disease, recent or old; with degeneration of structure; or with functional derangement. It requires some force of fancy to realize what would be our position. The thermometer might teach us much; but it is difficult to see in what way either stethoscope, cardiograph, or sphygmograph, could do other than augment our bewilderment. Those who have made out for us the meaning of the cardiac sounds; those who have skilfully constructed apparatus so as to make the heart itself record, in some fashion, its own marvellous movements; and those who have delineated, in some sense, the curve and time-ordered elements of the radial pulse, would all admit that their work was based upon this foregone conclusion, the accepted fact, that the blood moved onwards in a circle. They have attained to knowledge that Harvey could not reach; but let me ask, could they have known what they now do, unless Harvey had raised the platform upon which they stood?" (R., p. 21, *et seq.*)

Throughout Harvey's writings there is an eminently religious tone; a devout and reverential recognition of God, not only as the great primal, ever-acting force—behind, outside, and before all the works of nature—but as the being, "The Almighty and Eternal God," to whom, as he says in his last will and testament, "I do most humbly render my soul, as to Him that gave it, and to my blessed Lord and Saviour, Jesus Christ." (R., p. 23.)

Although Harvey's name may be unknown to many in the days to come, yet, so long as disease lasts—so long as the movements of the blood form part of the study of the physiologist and the art of the physician—so long as any further light is to be thrown upon them by cardiograph or sphygmograph, or by any as yet unthought-of method of investigation—so long as

"the circulation" is a recognized fact of science, his work will live. (R., p. 21.)

Reading Harvey's own writings—his themes, their introductions, their dedications, his disquisitions, exercises, letters, and "*obiter dicta*"—we find him writing, all unconsciously, his own biography; and this confers an unspeakable charm upon his works. He does not tell us of his birth-place, or parentage, or where he was taught, or how he lived, . . . but he reveals his very soul and life, his method of work, and his mode of thinking about it all, as he spent those long years of research, experiment, discovery, and disputation, together with all the toils of a teacher, and the cares of a busy practitioner of medicine. (R., p. 5.)

In the British Museum there are 52 books relating to Harvey and his work; 30 are in Latin, 18 in English, the others being in German. These include different editions of the same work. In 1847, Doctor Robert Willis published an able and, so far as I can ascertain, the first really creditable edition of the works of Harvey in English.

GROTIUS.—1583-1645.

Hugo Grotius*—in Dutch, De Groot—was born at Delft on the 10th April, 1583. His family had long been illustrious. The progress made by him in his studies was most remarkable. We are told that at the age of nine he wrote verses, that at fifteen his knowledge of philosophy, divinity, civil law, and philology was considerable; and that he had then written a commentary on Martianus Capella. In 1598 he accompanied the Dutch Ambassador into France, where he was well received by Henry IV., and there took his degree of doctor of laws. Returning to his native country, he practised at the bar, pleaded before he was seventeen years of age, and was made Advocate-General in his twenty-fourth year. In 1613 he settled at Rotterdam, and was created pensionary of that town, and in the same year was sent to England respecting the disputes between the merchants of the two nations, and that on the subject he wrote under the style "*Mare Liberum*," a treatise, showing the right the Dutch had to the Indian trade. Being involved in the matters that undid his patron, Barnevelt,—the disputes between the Remonstrants (Armenians), of whom Barnevelt and Grotius were warm supporters, and their opponents the Calvinists—he was arrested in August, 1628, and condemned to perpetual imprisonment and the forfeiture of his estates. On the 18th May, 1629, he was confined in the castle of Louvestein, where, for about eighteen months, he was somewhat roughly treated. We are told that Mary de Regelsburg, his wife, having observed that the guards had grown weary of searching the large trunk that was sent backward and forward

* The matter of this sketch is derived from "The Rights of War and Peace." in three books, wherein are explained "the law of nature and nations, and the principal points relating to government." Written in Latin by the learned Hugo Grotius, and translated into English. To which are added all the large notes of Mr. F. Barbeyrac. London, 1738.

with books, and with dirty linen to be washed at Gorcum, a neighbouring town, advised her husband to put himself into it; that she made some holes with a wimble to admit the necessary air at the spot where his head would be: that he followed her advice; reached Gorcum in safety; that in the disguise of a joiner, rule in hand, he found his way in the public waggon to Antwerp; that his good and shrewd wife had pretended all the while that her husband was very sick, but that when satisfied he was safe, she, laughing, told the guards that the bird had flown; that at first it was resolved to prosecute her; that some of the judges suggested that she should be kept in prison instead of her husband; that by a majority, however, of votes she was released; and that by almost every one she was praised for having, by her wit, procured her husband's liberty. Be that as it may, Grotius and his prison parted company, and he found his way to France, where he was well received, and had a pension assigned him by the king of 3,000 livres. He there applied himself to study and to the writing of books; his first being:—"*An apology for the Magistrates of Holland, who had been turned out of their places.*" After a stay of eleven years in France, he returned to Holland, encouraged to do so by Prince Frederick Henry, who had succeeded his brother. The enemies of Grotius, however, soon forced him to return to Hamburg, where he remained till 1634, when Queen Christiana of Sweden invited him to her country, made him one of her counsellors, and sent him as her ambassador to Louis XIII., much to the annoyance of Richelieu, who disliked him. That office he held for eleven years, after which he returned to Stockholm, gave the queen an account of his stewardship, and humbly begged his dismissal. The queen reluctantly granted his request, and, upon his departure, gave him substantial marks of her esteem. The ship in which he embarked encountered a violent storm. Grotius was landed on the coast of Pomerania, sick and uneasy in mind. He continued his journey overland. His illness forced him to stop at Rostock, where, on the 28th August, 1645, he died.

“With the talents of the most able statesman, Hugo Grotius united deep and extensive learning. He was a profound theologian, excellent in exegesis, his Commentary on the New Testament being still esteemed; a distinguished belles-lettres scholar, an accurate philosopher and jurist, and an historian intimate with the sources of history. His writings have had a decisive influence on the formation of a sound taste, and on the diffusion of an enlightened and liberal manner of thinking in affairs of science. As a philologist, he seizes the genius of his author with sagacity, illustrates briefly and pertinently, and amends the text with facility and success. His material translations from the Greek are executed with the spirit of a poet. Among the modern Latin poets he holds one of the first places, and he also tried his powers in Dutch verse. But the philosophy of jurisprudence has been especially promoted by his great work on natural and national law—*De Jure Belli et Pacis*—which laid the foundation of a new science; besides which he wrote *Annales Belgicae usque ad Ann. 1609*; *Parallelon rerum—publice*; *De veritate religionis Christ & Pœmata*.” So says the author of the article in the Popular Encyclopædia.

His master-piece, the *De Jure Belli et Pacis*, printed in Paris in 1625, was dedicated to Louis XIII. M. Bignon, in a letter to Grotius dated the 5th March, 1635, says:—“I had almost forgot to thank you for your treatise, *De Jure Belli*, which is as well printed as the subject deserves it. I have been told that a great king had it always in his hands, and I believe it is true, because a very great advantage must accrue from it, since that book shows that there is reason and justice in a subject which is thought to consist only in confusion and injustice; those who read it will learn the true maxims of the Christian policy, which are the solid foundations of all governments; I have read it again with a wonderful pleasure.”

His book was regarded as the revelation of a new and ennobling science. The fact that professors were specially appointed in the universities during his life to expound his

doctrines gives some idea of the impression produced by his great master-piece. It was possibly the highest tribute that could be paid by man to man. Is it too much to say that he is the greatest jurist, whether of ancient or modern times? I think not. He said, "Human laws may enjoin many things that are nowhere commanded by the laws of nature, but can enforce nothing that is contrary to it." (Book II., cap. 3.)

By common consent he long has been, and still is regarded as the founder of the science styled 'International Law.' To have been that would have been much, but what he in fact did, I submit, was infinitely more. The title of his great work, *De Jure Belli et Pacis*, than which it is difficult to imagine one more appropriate to his grand conception, has, however, by having been taken in a narrow sense, tended greatly to mislead. To the mind of Grotius, an individual nation is but as an individual family, a something utterly insignificant, when contrasted with the great whole—humanity. Two beings, and two only, were ever present to his mind—God and man. His object was to show that the laws of God are universal, easily appreciable by man, and that, by obedience to them, man can find the greatest happiness of which he is capable. To him those grand yet simple laws govern alike the relations of the members of a family, of a kingdom, and of the great family of nations. Law in his hands is what law always must be when dealt with by a master—a thing of delight, intelligible by all—eternal principles adapting themselves to circumstances.

I propose to show the construction of this work by setting out all the titles, and then to make a few extracts from the first two books just by way of giving a taste.

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PRELIMINARY DISCOURSE.

§ 1. The civil law, whether that of the Romans, or of any other people, many have undertaken either to explain by commentaries, or to draw up into short abridgments. But that law which is common to many nations or rulers of nations, whether derived from nature, or instituted by divine commands, or introduced by custom and tacit consent, few have touched

upon, and none hitherto treated of universally and methodically, though it is to the interest of mankind that it should be done,

§ 6. Man is indeed an animal, but one of a very high order. and that excels all the other species of animals much more than they differ from one another : as the many actions proper only to mankind sufficiently demonstrate. Now, amongst the things peculiar to man is his desire of society, that is, a certain inclination to live with those of his own kind, not in any manner whatever, but peaceably and in a community regulated according to the best of his understanding, which disposition the Stoics termed *Οικείωσιν*. Therefore, the saying that every creature is led by nature to seek its own private advantage, expressed thus universally, must not be granted.

§ 7. . . . It must be owned that a man grown up is capable of acting in the same manner (*i.e.*, with the kindness of animals and infants) with respect to things that are alike, and that he has, besides, an exquisite desire of society, for the satisfaction of which he alone of all animals has received from nature a peculiar instrument, *viz.*, the use of speech. I say that he has, besides that, a faculty of knowing and acting according to some general principle ; so that what relates to this faculty is not common to all animals, but properly and peculiarly agrees to mankind.

§ 8. This sociability, which we have now described in general, or this care of maintaining society in a manner conformable to the light of human understanding, is the fountain of right, properly so called : to which belongs the abstaining from that which is another's, and the restitution of what we have of another's, or of the profit we have made by it, the obligation of fulfilling promises, the reparation of a damage done through our own default, and the merit of punishment among men.

§ 9. . . . Whatsoever is contrary to such a judgment—a judgment according to the measure of our understanding—is likewise understood to be contrary to natural right, that is, the law of our nature.

§ 12. And this now is another original of right, besides that of nature, being that which proceeds from the free will of God, to which our understanding infallibly assures us we ought to be subject ; and even the law of nature itself, whether it be that which consists in the maintenance of society, or that which in a looser sense is so-called, though it flows from the internal principles of man, may, notwithstanding, be justly ascribed to God, because it was His pleasure that these principles should be in us. And in this sense Chrysippus and the Stoics said that the origin of right is to be derived from no other than Jupiter himself ; from which word—Jupiter—it is probable the Latins gave it the name *Jus*.

§ 15. Amongst men, parents are as so many gods, in regard to their children, therefore the latter owe them an obedience, not indeed unlimited, but as extensive as that relation requires, and as great as the dependence of both upon a common superior permits.

§ 16. Again, since the fulfilling of covenants belongs to the law of nature—for it was necessary there should be some means of obliging men among themselves, and we cannot conceive any other more conformable to nature—from this very foundation civil laws are derived. For those who had incorporated themselves into any society, or subjected themselves to any one man or number of men, had either expressly, or from the nature of the thing must be understood to have tacitly, promised that they would submit to whatever either the greater part of the society, or those on whom the sovereign power had been conferred, had ordained.

§ 18. But as the laws of each state respect the benefit of that state ; so amongst all or most states there might be, and in fact there are, some laws agreed on as by common consent, which respect the advantage not of one body in particular, but of all in general. And this is what is called “the law of nations,” when used in distinction to “the law of nature.” . . .

§ 26. But so far must we be from admitting the conceit of

some, that the obligation of all right ceases in war ; that, on the contrary, no war ought to be so much as undertaken but for the obtaining of right ; nor, when undertaken, ought it to be carried on beyond the bounds of justice and fidelity. Demosthenes said well, that war is made against those who cannot be restrained in a judicial way. For judicial proceedings are of force against those who are sensible of their inability to oppose them ; but against those who are, or think themselves, of equal strength, wars are undertaken ; but yet certainly, to render wars just, they are to be waged with no less care and integrity than judicial proceedings are usually carried on.

§ 28. . . . The opinion that a war is not rashly and unjustly begun, nor dishonourably carried on, is likewise very prevalent towards procuring friendships ; which nations, as well as private persons, stand in need of upon many occasions. For no man readily associates with those who, he thinks, have justice, equity, and fidelity in contempt.

§ 31. . . . The laws of nature, being always the same, may be easily collected into an art ; but those which proceed from human institution being often changed, and different in different places, are no more susceptible of a methodical system than other ideas of particular things are.

§ 40. . . . My first care was to refer the proofs of those things that belong to the law of nature to some such certain notions as none can deny, without doing violence to his judgment. For the principles of that law, if you rightly consider, are manifest and self-evident, almost after the same manner as those things are that we perceive with our outward senses, which do not deceive us if the organs are rightly disposed, and if other things necessary are not wanting. Therefore Euripides, in his *Phœnisææ*, makes Polynices, whose cause he would have to be represented manifestly just, deliver himself thus :—

“ I speak not things hard to be understood,
But such as, founded on the rules of good
And just, are known alike to learn'd and rude.”

And he immediately adds the judgment of the chorus—which consisted of women, and those, too, barbarians—approving what he said.

§ 41. I have likewise, towards the proof of this law, made use of the testimonies of philosophers, historians, poets, and, in the last place, orators; not as if they were to be implicitly believed; for it is usual with them to accommodate themselves to the prejudices of their sect, the nature of their subjects, and the interest of their cause. But that, when many men of different times and places unanimously affirm the same thing for truth, this ought to be ascribed to a general cause; which, in the questions treated of by us, can be no other than either a just inference drawn from the principles of nature, or an universal consent. The former shows the law of nature, the other the law of nations. . . .

§ 45. . . . To resist all temptation of what kind soever, and that for this only reason, viz., the preserving of human society inviolable, is indeed the proper business of justice.

§ 57. In this whole work there were three things that I chiefly proposed to myself; to render the reason of my decision as evident as possible, to dispose the matters to be treated of into a regular method, and to distinguish those things which might appear to be the same, but were not.

§ 60. As to the style, I was not willing, by joining a multitude of words with a multitude of things to be treated of, to create a distaste in the reader, whose advantage I consulted. I have therefore followed, as much as I could, a concise way of speaking, as convenient for such as undertake to instruct; that so they who are employed in public affairs, may, as at one view, see both what kind of controversies usually arise, and also the principles by which they may be decided; which being known, it will be easy to suit the discourse to the subject matter, and enlarge upon it as much as they please.

OF THE RIGHTS OF WAR AND PEACE.

BOOK I.

CAP. 1.—WHAT WAR IS, AND WHAT RIGHT IS.—War is the state or situation of those—considered in that respect—who dispute by force of arms. . . . The right of war is properly that which may be done without injustice with regard to an enemy. . . . That is unjust which is repugnant to the nature of a society of reasonable creatures. . . . As in societies some are equal as brothers, citizens, friends, and allies; and others unequal, . . . as parents and children, masters and servants, king and subject, God and man; so that which is just takes place either among equals, or amongst people, whereof some are governors and others governed, considered as such. . . . A king—the sovereignty—has a greater right to the goods of his subjects, for the public advantage, than the proprietors themselves. And when the exigencies of the state require a supply, every man is more obliged to contribute towards it than to satisfy his creditors. . . . *Natural right* is the rule and dictate of *right reason*, showing the moral deformity or moral necessity there is in any act, according to its suitableness or unsuitableness to a reasonable nature, and consequently, that such an act is either forbid or commanded by God, the author of nature. . . . Property, as now in use, was introduced by man's will, and being once admitted, this law of nature informs us that it is a wicked thing to take away from any man, against his will, what is properly his own. . . . There are some things allowed by the law of nature, not absolutely, but according to a certain state of affairs. Thus, before property was introduced, every man had naturally a full power to use whatever came in his way. And before civil laws were made, every one was at liberty to right himself by force. . . . An universal effect requires an universal cause. And there cannot well be any other cause assigned for this general

opinion, than what is called common-sense. . . . That law which is called "law of nature," is unchangeable, in the opinion of all men who are of a right and sound mind; but if it does not appear so to men of weak and disturbed judgments, it argues nothing to the purpose; for we all allow honey to be sweet, though it may taste otherwise to a sick person. . . . The civil right is that which results from the civil power. The civil power is that which governs the state. The state is a complete body of free persons, associated together to enjoy peaceably their civil rights, and for their common benefit. The less extensive right, and which is not derived from the civil power, though subject to it, is various, including in it the commands of a father to his child, of a master to his servant, and the like. But the more extensive right is the right of nations, which derives its authority from the will of all, or at least of many nations. . . .

CAP. 2.—WHETHER 'TIS EVER LAWFUL TO MAKE WAR.—
 . . . Among the first impressions of nature there is nothing repugnant to war; nay, all things rather favour it. For both the end of war being the preservation of life or limbs, and either the securing or getting things useful to life, is very agreeable to those first motions of nature; and to make use of force, in case of necessity, is in no wise disagreeable thereunto, since nature has given to every animal strength to defend and help itself. . . . Right reason, and the nature of society, which is to be examined in the second and chief place, does not prohibit all manner of violence, but only that which is repugnant to society,—that is, which invades another's rights. For the design of society is, that every one should quietly enjoy his own, with the help and by the united force of the whole community. . . . If every man were to seize on the goods of another, and enrich himself by the spoils of his neighbour, human society and commerce would necessarily be dissolved. Nature allows every man to provide the necessaries of life,

rather for himself than for another ; but it does not suffer any one to add to his own estate by the spoils and plunders of another. It is not then against the nature of human society for everyone to provide for and take care of himself, so it be not to the prejudice of another's right ; and, therefore, the use of force, which does not invade the right of another, is not unjust. . . . By the *law of nature*, then, which may also be called the *law of nations*, it is plain that every kind of war is not to be condemned. . . .

CAP. 3.—THE DIVISION OF WAR INTO PUBLIC AND PRIVATE.
AN EXPLICATION OF THE SUPREME POWER.—The most general and most necessary division of war is this, that one war is private, another public, and another mixed. That is a public war which is made on each side by the authority of the civil power. Private war is that which is made between private persons, without public authority. Mixed war is that which is made on one side by public authority, and on the other by mere private persons. . . . It cannot be doubted but that it is lawful for him who has any jurisdiction, to reduce to their duty, by his officers, a few who are disobedient : provided it requires not great force to do it, nor endanger the state. . . . Some governments may respect the benefit as well of the governor as of the governed : as when a people, unable to defend themselves, submit to the dominion of a powerful prince. I do not deny but that the good of the subject is the direct end proposed in the establishment of most civil governments ; and that it is true, which Cicero said from Herodotus, and Herodotus from Hesiod, that kings were constituted to administer justice to the people. But it does not therefore follow, as they infer, that the people are superior to the king, for guardianship was undoubtedly designed for the benefit of the pupil, and yet it gives to the guardian a power over the pupil. Neither does it avail that a guardian may be removed if he does not manage his charge well ; and, therefore, there ought to be the same

power over a king. For as to a guardian, it is to be considered that he has a power superior to him : but in civil governments, because there must be some *dernier resort*, it must be fixed either in one person or in an assembly : whose faults, because they have no superior judge, God declares, and He takes cognizance of ; who either punishes them if there be a necessity for it, or tolerates them, for the chastisement or trial of a people. . . .

CAP. 4.—OF A WAR MADE BY SUBJECTS AGAINST THEIR SUPERIORS.—Private men may certainly make war against private men, as a traveller against a robber, and sovereign princes against sovereign princes, . . . and so may private men against princes, but not their own ; . . . so may sovereign princes against private men, whether their own subjects, . . . or strangers. . . . The only question is, whether private or public persons may lawfully make war against those that are set over them, whether as supreme or as subordinate. . . . The main question is, what is lawful for subjects to do against their sovereign, or those that act by his authority. This is allowed by all good men, that if the civil powers command anything contrary to the law of nature, or the commands of God, they are not to be obeyed. . . . In public matters there is nothing more considerable than the order of government I have spoken of, which is incompatible with the right of resistance left to private persons. . . . Dion Cassius says, “I think it neither decent for a prince to submit to his subjects, nor can one ever be in safety if those who ought to obey pretend to command. Do but consider what a strange disorder it would cause in a family if children should be allowed to despise their parents, and what in schools, if scholars should fight their masters ; what health for patients that will not be ruled by their physicians ; or what security for those in a ship, if the sailors will not follow the orders of the pilot ? Nature has made it necessary, and useful to mankind, that some should

command, some should obey." . . . I do not deny that some acts of virtue may, by a human law be commanded, though under the evident hazard of death. As for a soldier not to quit his post. . . . All human laws are and ought to be so enacted, as that there should be some allowance for human frailty. . . . To slander any private person is not lawful, therefore, of a king we must not speak evil, though it be true. Because, as the writer of the problems fathered upon Aristotle says, "He that speaks evil of the magistrate, offends against the whole body of the people." But if we must not speak evil of him, much less must we use violence against him.

CAP. 5.—WHO MAY LAWFULLY MAKE WAR.— . . . This is most certain, that every man has a natural right to revenge himself; and therefore were hands given us. . . . They who write of offices justly say, that there is nothing so useful to one man as another man. Now there are several particular ties which engage men mutually to assist each other. Kinsmen assemble to help one another: neighbours and fellow-citizens call for the aid one of the other. . . . But though there were no other obligation, it is enough that we are allied by common humanity. For every man ought to interest himself in what regards other men. . . .

By instruments, we mean not arms, nor such like things, but certain persons who act by their own will, but yet so as that will depends on another that sets it in motion: such is a son to his father, being part of himself naturally; or a servant, as a part of his master by law. For as a part is not only a part of the whole, in the same relation as a whole is the whole of a part, but that very thing which it is, because of the whole on which it depends: so the thing possessed makes in some manner part of the possessor. . . . As a servant is in a family, the same is a subject in a state, and is, therefore, the instrument of the sovereign. Nor can we doubt but all subjects may naturally be employed in war, though some special laws may

exempt some ; as formerly slaves among the Romans, and now everywhere the clergy ; which law, notwithstanding, as all others of that nature, must be understood with the exception of cases of extreme necessity. . . .

BOOK II.

CAP. 1.—OF THE CAUSES OF WAR : AND FIRST, OF THE DEFENCE OF PERSONS AND GOODS.— . . . “There is no other reasonable cause of making war but an injury received.” So says St. Austin. . . . Where the methods of justice cease, war begins. Now, in law there are actions for injuries not yet done, or for those already committed. For the first, when securities are demanded against a person that has threatened an injury, or for the indemnifying of a loss that is apprehended. . . . For the second, that reparation may be made, or punishment inflicted. . . . Most men assign three just causes of war : defence, the recovery of what is our own, and punishment. . . . It is a matter of dispute whether an innocent person who happens to be in our way, and hinders that defence or escape that is absolutely necessary for the preservation of our lives, may be run through, or crushed to pieces. There are some, even among divines, who think it lawful. . . . But it is necessary that the danger be present, and, as it were, contained in a point. I grant if a man takes arms, and his intentions are visibly to destroy another, the other may very lawfully prevent his intentions ; for, as well in moral as in natural things, there is no point but what admits of some latitude ; but they are highly mistaken, and deceive others, who admit that any sort of fear gives the right to take away the life of another. . . . Though we were certainly informed that a person has conspired against us, or designs to lay an ambush for us, or is preparing to poison us, to bring a false accusation against us, to suborn false witnesses, and to corrupt the judges, yet, whilst we have nothing to fear for the present on the part of that person, I maintain that we cannot lawfully kill him,

if either such a danger can be possibly avoided any other way, or even if it does not then sufficiently appear that it may not be avoided. "That the same may be done on account of chastity can scarce be here any matter of dispute, when not only the opinion of the world, but even the law of God, has made it equivalent to life itself. . . . I must own that, for the preservation of our goods, it is lawful, if there is a necessity for it, to kill him that would seize upon them. . . . The difference between a night and a day thief consists in this, that in the night it is not an easy matter to have witnesses, and, therefore, if the thief should be found dead we readily give credit to a person who declares that he slew him in his own defence, since he was armed with some dangerous instrument. . . . What we have hitherto said, concerning the right of defending our person and estates, principally regards private wars; but we may likewise apply it to public wars, with some difference. For first, in a private war the right of defence is, as it were, only momentary, and ceases as soon as one can apply to a judge; whereas a public war, arising only between those that acknowledge no common judge, or when the exercise of justice is interrupted; the right of defence has here some continuance, and is perpetually maintained by fresh injuries and damages received.

CAP. 2.—ON THINGS WHICH BELONG IN COMMON TO ALL MEN.
 —All things, as Justin has it, were at first common, and all the world had, as it were, but one patrimony. Hence it was that every man converted what he could to his own use, and consumed whatever was to be consumed; and such a use of the right common to all men did at that time supply the place of property, for no man could justly take from another what he had thus first taken to himself, which is well illustrated by that simile of Cicero:—"Though the theatre is common for everybody that comes, yet the place that everyone sits in is properly his own." . . . The most ancient arts were those

of agriculture and feeding cattle. They were exercised by the first brothers, so that there was between them some sort of division of goods. The diversity of inclinations immediately produced jealousy, and afterwards murder. From hence we learn upon what account men departed from the ancient community, first of moveable, and then of immoveable things: namely, because, men being no longer contented with what the earth produced of itself for their nourishment, being no longer willing to dwell in caves, to go naked, or covered only with the barks of trees or the skins of wild beasts, wanted to live in a more commodious and more agreeable manner; to which end labour and industry was necessary, which some employed for one thing and others for another. And there was no possibility then of using things in common. . . . Thus, also, we see what was the original of property. . . . It resulted from a certain compact and agreement, either expressly—as by a division, or else tacitly—as by seizure. For as soon as living in common was no longer approved of, all men were supposed, and ought to be supposed, to have consented that each should appropriate to himself, by right of first possession, what could not have been divided. . . . In a case of absolute necessity, that ancient right of using things as if they still remained common, must revive, and be in full force; for in all laws of human institution, and consequently in that of property too, such cases seem to be expected. Hence it is that at sea, when there is a scarcity of provisions, what each man has reserved in store ought to be produced for the common use. . . . “Necessity,” says Seneca, the father, “that great recourse of human frailty, breaks through the ties of all laws.” (*An instance of this right is war.*) “Why should we not,” says Cicero, “when we can do it without any detriment to ourselves, let others share in those things that may be beneficial to those that receive them, and no inconvenience to us who give them.” Seneca, therefore, denies that it is any favour, properly so-called, to permit a man to light a fire by ours.

CAP. 3.—OF THE ORIGINAL ACQUISITION OF THINGS : WHERE ALSO IS TREATED OF THE SEA AND RIVERS.—The particular right we have to a thing is either by original or derivative acquisition. Original acquisition, when mankind were so few in number as to be able to assemble together in one place, might be made by first occupancy and by division, as we observed before. But now it can be made only by first occupancy. . . . To the ways of acquisition, Paulus, the lawyer, adds this, which indeed seems very natural, viz., when we are the cause that a thing exists in nature. But since nothing can be naturally produced except from some matter that did itself exist before, if that be ours, we do but continue our right of property by producing a new form in it. . . . Now, as to what belongs properly to nobody, there are two things which one may take possession of—jurisdiction, and the right of property as it stands distinguished from jurisdiction. . . . Jurisdiction is commonly exercised on two subjects, the one primary, viz., persons, and that alone is sometimes sufficient, as in an army of men, women, and children that are going in quest of some new plantations ; the other secondary, viz., the place which is called territory. But although jurisdiction and property are usually acquired by one and the same act, yet they are in themselves really distinct ; and, therefore, property may be transferred, not only to those of the same state, but even to foreigners too, the jurisdiction remaining as it was before. . . . (*The taking of things moveable may be hindered by a law.*) It is also to be observed that if we regard the law of nature alone, property can only be his who has the use of reason. But the law of nations has so ordained it, for the common good, that not only infants, but madmen, may both have and keep a property in things,—mankind representing them, if I may say so, whilst they are in that state ; for human laws may enjoin many things that are nowhere commanded by the law of nature, but can enforce nothing that is contrary to it. And, therefore, this sort of property, which, by the unanimous consent of all

civilised nations, was introduced in favour of infants and other persons that resemble them, stops *intra actum primum*, and never passes *ad actum secundum*, as the schools term it ; that is, they have indeed the right, but not the power of exercising it by themselves. For alienation, and such other ways of disposing of goods, do in their nature suppose an act of a reasonable will, which cannot exist in such persons. . . Nor is it undeserving our observation that the acquisition of such things as have had an owner once, but are now without one, either because they have been abandoned, or because the owners themselves are dead and gone, is to be judged an original acquisition, for in such a case they return to the state in which all things were at first. But it is likewise to be observed that the original acquisition of a country is sometimes made by a people, or a prince, in such a manner that not only the jurisdiction and sovereignty which comprehends that eminent right we have elsewhere spoken of, but also the full and complete property, is at first, in general, vested in that people or prince ; and that afterwards a particular distribution is made among private persons, but so that their property should still depend upon that prior property ; if not as the right of a vassal upon the right of his lord, or the right of a tenant upon the right of him who owns the farm ; however, by some slighter sort of dependence, as there are many kinds of rights to a thing, among which is the right of him who, upon a certain condition, expects a feoffment of trust. . . . When the property of private persons depends on the general property of the state in the manner I have just mentioned, that which has no particular owner does not, therefore, belong to the first occupant, but returns to the whole society, or superior master. And even the civil law, without this reason, may establish such a right as we have already hinted.

CAP. 4.—OF A THING PRESUMED TO BE QUITTED, AND OF THE RIGHT OF POSSESSION THAT FOLLOWS ; AND HOW SUCH A POSSES-

SION DIFFERS FROM USUCAPTION AND PRESCRIPTION.—A great difficulty arises here concerning the right of prescription. For whereas this right receives its being from the civil law—time, as such, having no power to produce anything, for nothing is done by time, though everything is done in time—in Vasquez's opinion, it cannot take place between two free nations, or two kings, or between a free people and a king; no, nor between a king and a private person who is no subject of his, nor between two subjects of different princes or states; which seems true enough, unless the thing or the act depends on the law of the country. But if we should admit this to be true, a very great inconvenience would follow; the disputes about kingdoms and their boundaries would never be at an end: which, as it directly tends to create uneasiness, troubles, and words amongst men, so is it contrary to the common sense of nations. (*But even amongst these long possession is frequently urged as a right.*)

. . . What shall we say then? The effects of right, which depend on the will, cannot, however, take place in consequence of a mere act of the mind; but that internal act must be manifested by some external sign. For, since the thoughts of man cannot be discovered but by outward signs, it would be absurd and repugnant to our nature to attribute any effect of right to the bare act of the mind, and therefore it is that mere inward motions do not come under the cognizance of human laws.

. . . As to actions. A man is supposed to abandon a thing when, for instance, he throws it away; unless it be in such circumstances that we ought to presume he does it only through the necessity of the time, and with the intention to recover it if he can. . . . Thus if a man, who knows very well that a thing belongs to him, should treat with the person who is in possession of it as if he was the true and lawful proprietor, he may reasonably be supposed to resign his right; and why a right cannot be made over the same way between kings and free people, no reason can be assigned. It is much the same as if a magistrate should allow or command one under his

government to do that which the law forbids ; he is presumed then to release him from the obligation of that law. In these cases the presumption is not founded on the civil law, but on the law of nature, according to which everyone has the liberty of parting with his own, and, on a natural conjecture, whereby everyone is supposed to intend that which he has sufficiently given to understand. . . . Now, morally speaking, under the general name of action are likewise comprehended omissions considered with the requisite circumstances. Thus a man by his silence, in case he is upon the spot, and knows what is doing, is supposed to give his consent to what is then done ; which the Mosaic law does also allow (Numbers xxx., 4, 5, and 11, 12) ; unless it appears that he was awed into silence, or any other way hindered from speaking. . . . There is something very like this in the establishment of a custom. For this, too—setting aside the civil law, which regulates the time and manner of it—may be introduced by the subjects if the sovereign tolerates and connives at it. It is true the time required to give this custom any effect of right has in general no fixed limits ; but it ought to be sufficiently long in order to give room to suppose the consent of the prince. But before we can reasonably presume from a man's silence that he has relinquished his right, two things are necessary. One is, that he should know that another possesses what belongs to him : and the other, that he should be voluntarily silent, though he has full liberty to speak. For when one forbears to act through mere ignorance, it can have no effect : and if there appears any other reason that hindered him from acting, the conjecture drawn from silence can have no place. . . . "It is always allowable for subjects to recover, if they can, their liberty—that liberty which is proper for a people, because the government that was got by force may by force be dissolved. And if it was the result of a free act of the will, men may repent it, and alter that will." But though a sovereignty may originally have been acquired by force, yet it may become lawful by a

tacit will, which confirms the employment of it to the possessor. And the will of the people may be such, either at the time when they establish the sovereignty, or afterwards, that they may confer a right which does not for the future depend on their will. King Agrippa in Josephus, in his speech to the Jews, who, for their preposterous desire of recovering their liberty, were styled Zealots, tells them—"It is now too late to aim at liberty. It was formerly your duty to have fought for the defence of it. It is hard to expose oneself to slavery, and resistance, in order to prevent it, is lawful. But he who, once vanquished, revolts, is not to be called a lover of liberty, but an insolent, rebellious slave."

CAP. 5.—OF THE ORIGINAL ACQUISITION OF A RIGHT OVER PERSONS, WHERE ALSO IS TREATED OF THE RIGHT OF PARENTS : OF MARRIAGES : OF SOCIETIES : OF THE RIGHT OVER SUBJECTS : OVER SLAVES.—We have a right, not only over things, but over persons too, and this right is originally derived from generation, from consent, from some crime. By generation, parents, both father and mother, acquire a right over their children ; but if their commands should run counter, the father's authority is to be preferred in regard to the dignity of the sex. . . That right over persons which arises from consent, is derived either from association or subjection. The most natural association is that of marriage, but, because of the difference of sex, the authority is not equal. The husband is the head of the wife in all conjugal and family affairs, for the wife becomes a part of the husband's family, and it is but reasonable that the husband should have the rule and disposal of his own house. . . Marriage, then, we look upon to be, in its natural state, the cohabitation of a man with a woman, which puts the woman, as it were, under the immediate inspection and guard of the man ; for we see, even among some beasts, such a sort of society between the male and female. But man, being a rational creature, marriage, in regard to him, includes, moreover, an

engagement of the wife to her husband. Nor does nature seem to require anything more to constitute a marriage, nor even the law of God, before the propagation of the Gospel. For before the law of Moses, persons even of the greatest holiness had several wives at once. . . . It is certain that in former ages most nations had the liberty, not only of divorces, but also of marrying several wives. Tacitus observes that the Germans were almost the only barbarians in his time who were contented with one wife apiece. . . . But besides, though a merely human law prohibits the contracting of marriages between some particular persons, it will not, therefore, follow that such a marriage, if it be actually contracted, is void. For to forbid and to invalidate are quite different things; the effect of a prohibition may be reduced to a punishment, either arbitrary, or determined by the law. . . . Besides this most natural society, the matrimonial, there are several other, both public and private, and the public are either between the people and the assembly or person who governs them, or composed of several nations. But all of them have this in common to them, that in matters for which each association was instituted, the whole body, or the major part in the name of the whole body, oblige all and every the particular members of the society. For it is certainly to be presumed that those who enter into a society are willing that there should be some method fixed of deciding affairs; but it is altogether unreasonable that a greater number should be governed by a less, and therefore, though there were no contracts or laws that regulate the manner of determining affairs, the majority would naturally have the right and authority of the whole. . . . As to the rank naturally to be observed among the members of a society, it is according as every man entered into it. So among brothers, the rule is for the eldest to take the place of the rest; and so on, without any regard to other qualifications; for as Aristotle says:—"They are equal, that is, brothers, except only as they differ in age." . . . The union of many heads of families into one people

or state gives such a body of men the greatest power over its members, because this is the most perfect of all societies; nor is there any outward act done by any person, which does not either by itself, or by some circumstance or other, refer to this society. And here it is usual to enquire whether subjects may go out of the state they belong to without obtaining leave for so doing. We know there are some people that have no such thing allowed them, as, particularly, the Muscovites, nor do we at the same time disown but that one may enter into a civil society under such conditions, that the custom of the place may have the force of an express agreement. . . Tryphonius says that every man is at liberty to choose the state of which he has a mind to be a member. And Cicero, in his plea for Balbus, commends that privilege which everyone has of not staying in any state against his own inclinations; and he calls the power of either keeping or parting with one's right, *the foundation of liberty*. But even here must we observe that natural rule of equity, which the Romans, in the dissolution of private societies, always had regard to, that one is not to go out of the state, if the interests of the society requires he should stay in it; for, as Proculus very well observes, a regard is commonly had to the interest of the society, and not merely to the particular interest of any of its members. Thus, for instance, it is no ways for the benefit of a civil society, if there be any great public debt contracted, for the inhabitant to leave it, unless he be ready to lay down his proportion towards it; or if a war be undertaken upon a confidence in the number of subjects to support it, and especially if a siege be apprehended, no body ought to quit the service of his country, unless he substitutes another in his room, equally qualified to defend the state. Excepting in such cases as these, it is to be presumed that nations leave to everyone the liberty of quitting the state, because from this privilege they themselves may reap no less an advantage by the number of strangers they receive in their turn. Public subjection is that of a whole nation who put

themselves under the power and jurisdiction, either of one person or of several, or even of another nation—*e.g.*, “Do you to me, and to the Roman people, deliver yourselves up; you, the Collatine people, your city, your lands, your water, your frontiers, your temples, your goods, whatever you have, sacred or civil?” “We do.” “And I accept them.” . . . There is also an involuntary subjection arising from some crime or other, and this happens when he who has deserved to lose his liberty is forced to submit himself to him who has a right to punish him; and who it is that has such a right of punishing we shall see bye-and-bye. . . .

CAP. 6.—OF AN ACQUISITION—POSSESSION OR PURCHASE—DERIVED FROM A MAN’S OWN DEED; WHERE ALSO OF THE ALIENATION OF A GOVERNMENT, AND OF THE THINGS AND REVENUES THAT BELONG TO THAT GOVERNMENT.—A thing becomes ours from a derivative acquisition, either by the deed of another or by virtue of some law. Since the establishment of property, men, who are masters of their own goods, have by the law of nature a power of disposing of, or transferring, all or any part of their effects to other persons; for this is in the very nature of property—I mean of full, complete property; and therefore Aristotle says: “It is the definition of property to have in one’s self the power of alienation.” But there are two things here to be observed; the one in the giver, the other in the receiver. In the former it is required that whatever he does in this kind should appear by words, or by some other open or external sign, the mere internal act of his own will and mind being in no ways sufficient. . . . But that there should be a formal delivery made is what is required only by the civil law; which, because it is now received by many nations, is improperly styled “the law of nations.” . . . When we are treating of an alienation, we design under the head to include also a will or testament. For although a will, as all other acts, may receive its form from the civil law, yet

it is in substance and reality very like the right of property, and, that being once established, belongs to the right of nature; for I may give away my estate by will, not only absolutely, but on certain conditions; and that not only irrevocably and for ever, but with a power, too, of recalling it, reserving to myself both the possession of it and the full liberty of enjoying the same. For a will is the making over of one's effects in the case of death, till then to be reversed or altered at pleasure; and in the meantime reserving the whole right of possession and enjoyment. . . . That foreigners have not in some places a power to dispose of their effects by will, is not from the law of nations, but from the civil law of such and such a state; and I am much mistaken if it does not proceed from those ages when foreigners were looked upon as so many enemies; and therefore, among the more civilized part of mankind, it has been justly abolished and laid aside.

CAP. 7.—OF AN ACQUISITION DERIVED TO ONE BY VIRTUE OF SOME LAW; WHERE ALSO OF SUCCEEDING TO THE EFFECTS AND ESTATE OF A MAN WHO DIES WITHOUT A WILL.— . . . We know that the civil laws do not allow any man to do himself justice; and he that shall take anything by violence from another, although it be in reality his due, it shall be accounted no less than a sort of robbery; nay, and in many places he shall by that means lose his debt. . . . But where there are no courts at all to appeal to, it is there we must have recourse to the law of nature. . . . It is not to be supposed that, because a man dies without a will, he designed his estate for any persons who should first lay claim to it, or get possession of it, and therefore it follows that such effects should go to him to whom there is the greatest probability that the deceased, had he made a will, would certainly have bequeathed them. "To know the intention of the deceased," says the younger Pliny, "stands for a law." But in cases that are doubtful, it is always presumed that a man would do that which

is the most fair and honest. And among things fair and honest we must rank, in the first place, that which is strictly due ; and afterwards that which has a certain suitableness to the character or person of one, though not strictly due. . . . Nature teaches all animals to preserve themselves and their offspring, that by this means their race may be perpetuated for ever. So by Quintilian a son is introduced, delivering himself thus : "I claim my part by the law of nations." And Sallust called a will by which a son is disinherited, *impious and unjust*. And because this is a natural duty, therefore is the mother obliged to provide for such children which she has got by common conversations with several men. And though the Roman laws ordered nothing to be left for such children as were illegitimate ; and that by Solon's laws it was provided that a man should not be obliged to leave anything to his natural issue ; yet the canons of the Christian church have very much softened this rigour by instructing us that our children, however begotten, should be a part of our care ; and that in cases of necessity we ought to leave them whatsoever is necessary for the support of their lives. . . . Children, too, ought to support their parents ; a duty not only prescribed by the laws, but also taught by a common proverb—"Do as the storks do, return the kindness you yourselves have received." . . . A mother loves her children better than the father, because she knows they are hers, but he only thinks they are his. And therefore recourse was to be had to some means whereby the father of every child might be probably discovered. And this means was marriage, taken according to the mere law of nature, for that society places the woman under the care and custody of a man. . . .

CAP. 8.—OF SUCH PROPERTIES AS ARE COMMONLY CALLED ACQUISITIONS BY THE RIGHT OF NATIONS.— . . . The first way of acquiring a thing by the right of nations, as the Roman lawyers call it, is the seizure or possession of things

that have no owner : which way is certainly according to the law of nature in the sense I mentioned. . . . After the same manner as wild beasts become our own, so do also other things that have no owner. For nature, considered in itself, gives all these to him who finds and lays hold on them first. Thus was the desert city of Acanthus adjudged to the Chalcidians, who first entered it, not to the Andrians, who had first thrown a dart into it. For the beginning of possession is joining body to body, and this in moveables is done usually by the hands ; but in immoveables, by our feet. To know where a thing is, is not finding it. . . . Among things that have no owner are reckoned treasures, that is, money, whose owner is not known ; for what appears not, is as if it were not. Wherefore such treasures naturally belong to the finder, that is, to him who moves them from the place and secures them ; yet not so, but that laws or customs may ordain it otherwise. Plato would have notice given to the magistrates, and the oracle consulted. . . . The Germans awarded those treasures, and indeed all other things without an owner, to their prince, which now is grown so common that it may pass for a law of nations. For it is now observed in Germany, France, England, Spain, and Denmark. . . . The Roman lawyers, in order to prove the laws used by them to be those of nature, often allege this saying :—That it is most agreeable to nature that he should have the profit of anything who has also the disadvantage of it ; wherefore, since the river does often wash away part of my land, it is but reasonable, that whensoever it makes an addition it should be mine. But this rule does not hold unless where the benefit arises from what is my own, but here it arises from the river, which belongs to another. And it is natural that whatever loss there is, the owner should bear it. Besides, what they allege is not universal, as may appear by the exception of limited lands. Not to insist upon what often happens, that a river makes some persons rich and others poor, according to Lucan :—

"Some gain, some lose, just as the inconstant Po
Thinks fit to leave, or to o'erflow their lands."

. . . These things we have thought fit to observe, lest a man, often finding the term "right of nations" among the authors of the Roman law, should presently imagine it to be such a right as is unalterable, but that he might distinguish laws purely natural from those that are natural only in some certain circumstances ; and such laws as are common to several nations separately, from those which oblige, and are the bond of all human society. We must also observe that, if either by this right of nations, improperly so-called, or by the law of any one people, a method of acquiring a property be established without any distinction between natives and strangers, there also foreigners shall enjoy the same right ; and if they be hindered in the obtaining of it, it is such a wrong as may give a just occasion for a war.

CAP. 9.—WHEN JURISDICTION AND PROPERTY CEASE.— . . . Isocrates, and after him, the Emperor Julian, said that States were immortal ; that is, they might possibly prove so. . . . But as an alteration in small parts does not make a people cease to be what they were a thousand years ago and above ; so neither can it be denied but that it is possible for a people to be utterly extinct. And this may be done two ways, either where the body of the people is destroyed, or when the form or spirit—which I mentioned—is entirely gone. . . . That the person of the heir is to be looked upon to be the same as the person of the deceased, in regard to the continuance of property, either public or private, is an undoubted maxim. . . . But how far the conqueror may succeed to the conquered, shall be explained below, when we treat of the effects of war.

CAP. 10.—OF THE OBLIGATION THAT ARISES FROM PROPERTY.
. . . From things now in being, this obligation naturally

arises, that he who has in his hands what belongs to me should endeavour all he can to have it come into my possession ; all he can, I say, for he is not obliged to an impossibility, nor to restore it at his own charge ; but he is obliged to signify it that I may recover my own if I please. For as there was an equality to be observed in that state, where all things were common, that one as well as another might have the liberty of using what was common, so as soon as ever property was introduced there was a sort of mutual engagement, tacitly agreed on among the proprietors, that if one man should get another man's goods, he should be obliged to restore them to the owner ; for if the power of property reached no farther than to have a thing restored upon demand, property would have been too weakly secured, and the keeping of it too expensive. . . . To the rule that another man's goods, though honestly paid for, are to be restored—nor can he demand a reimbursement of his charges—I think proper to add this exception, unless where the proprietor could not, in all probability, have recovered the possession of his own without some expense ; as, suppose it was in the hands of thieves and pirates. For, in this case, what the owner would have gladly spent to have it again, may very fairly be deducted. . . .

CAP. 11.—OF PROMISES.—We now come in the order of our subject to treat of obligations arising from promises, where we presently meet Franciscus Connanus, an eminent scholar, opposing us. He maintains the opinion that those agreements which include no contract are not binding, either by the law of nature or nations, and yet he owns that they may, however, be laudably performed, if the thing promised be such as might, had no promise ever been made, honestly and conformably to the rules of some virtue, be done. . . . Nothing is so agreeable to human fidelity as to observe whatsoever has been mutually agreed upon. . . . To perform promises is a duty arising from the nature of immutable justice, which as it is in

God, so it is in some measure common to all such as have the use of reason. . . . The promises of madmen, idiots, and infants are void. But the case of minors is not the same, for though they are supposed not to have a perfect judgment, as are also women, yet that is not always so, nor is it of itself sufficient to render their acts invalid. . . . It is usual to enquire whether a promise, made upon a motive that is naturally dishonest and criminal, can be valid by the law of nature, as if a man should promise anything to him that should kill another. That this is a criminal promise is plain enough from this, in that it was made designedly to tempt a man to do what he ought not to do. . . . But, to avoid confounding the civil law with the law of nature, it must be observed that neither those promises, nor those donations, in which the reason for making them is not expressed, are, therefore, naturally invalid. Nor is any man, by his promise that he makes for what another is to do, obliged to pay damages and interest, provided he omits nothing that on his part he can possibly do, in order to get that other man to perform his, unless the words of the promise, or nature of the affair, carry with them any stricter obligation. "He was discharged from his engagement," says Livy, "since it was no fault of his that it was not performed."

CAP. 12.—OF CONTRACTS.—Among such human acts as turn to other men's advantage, some are single and uncompounded, others are mixed and compounded. . . . Those that are single are either gratuitous, and done for nothing, or permutatory, and by way of exchange: such as are gratuitous, are either merely so, or with some mutual obligation. Those that are merely gratuitous, are either done out of hand, or respect the future time. Acts permutatory, or by way of exchange, either regulate and adjust the shares, or make things common. The Roman lawyers rightly distinguish those acts which regulate shares into these. *Do ut des, facio ut facias, facio ut des*: I give you this, that you may give me that; I do this for you,

that you may do that for me ; I do this for you, that you may give me that. But the same lawyers exempt from this division some certain contracts, which they call *nominate*, not so much because they have a particular name, for so has also the contract of exchange—which, however, they exclude from their *nominate* contracts—but because, on the account of their more frequent use, they had received a certain effect, and a certain essential property, which, though nothing at all should be particularly said, one might by their very name sufficiently understand. . . . But the law of nature knows nothing of any such distinctions ; nor are those contracts, which they call *innominate*, either less natural or less ancient ; nay, exchange, which they reckon among the *innominate*, is both more simple and more ancient than the contract of sale.

Now all acts, advantageous to others, except those which are of mere generosity, are called *contracts*. In all contracts nature demands an equality, insomuch that the aggrieved person has an action against the other for over-reaching him. This equality consists partly in the acts, and partly in the subject itself of the contract ; and this equality, and dealing upon the square, must be observed as well as in those acts that are previous to the bargain, as those that are principal and essential to it. . . . It was well observed of St. Ambrose, “In all contracts, whatever faults are in the things exposed to sale, they ought to be discovered to the buyer, which if the seller does not do, though the right of the thing be transferred to the buyer, the latter has an action against the former by reason of the fraud.” And in Lactantius, “If a buyer does not inform the seller of his mistake, that so he may have a cheap bargain ; or if a man sells a slave that is a fugitive, or a house infected with the plague, and does not discover it to the purchaser, regarding only his own profit, he is not an ingenuous man, as Carneades would have him, but a knave and a rogue.” But it is not so with circumstances that do not directly concern the thing contracted for. As if a man should know that there

are several ships coming laden with corn, he is not obliged to tell you so ; but, however, to discover such a thing is kind and commendable, and, in some cases, not to be omitted without breach of charity. . . . But it signifies nothing to speak of those faults which are known to your dealer, as the servitude of the house which M. Marius Graldianus sold to C. Sergius Orata, and which he had bought of him before. For an equal knowledge on both sides, put both parties on an equal foot.

“ The dealing’s fair and he may take your gold,
And ne’er be thought a cheat for what he sold :
You bought a faulty rogue, he told you so.”

As to buying and selling, we must observe that the bargain and sale is good from the very moment of the contract ; and though the thing be not actually delivered, yet may the property be transferred, and this is the most simple way of dealing ; so, Seneca says, selling is the alienating of a thing that belongs to us, and the translating of it, and the right we have in it, to some other. For it is so in an exchange. But if it be agreed that the property shall not pass immediately, then the seller shall be obliged to transfer his property at such a time, and, in the meanwhile, both the profits and hazards shall be the seller’s. . . . Money itself varies, as our necessities do ; for as we have not always the same occasion for things that belong to another, so money is not always of the same value, but sometimes is more and sometimes less worth ; but yet the value of money is what lasts longest, and, therefore, we use it as the standard and measure of all things in trade. The meaning of which is this :—that which is the measure or standard to other things ought in itself to be constant, and such are gold, silver, and copper, in things susceptible of price, for they are in themselves of the same value, almost always, and in all places. But as other things which are useful or necessary are either scarce, or in abundance, so the same money, made of the same metal, and of the same weight, is sometimes worth more, sometimes less.

But yet we must observe that there are some contracts which look like usury, and are generally thought to be so, which, however, are agreements of another nature; as when what is demanded is to make amends for the damage the lender sustains by being a great while out of his money, or in consideration of that gain which, had he not lent it, he might otherwise have made, and so something is deducted for the uncertainty of his hopes, and for the pains he must very probably be at. So likewise if anything be demanded to defray the charges of him who lends money to several persons, and keeps always some cash by him for that very purpose; and if anything be advanced for the hazard he runs of losing the principal where his security is not extraordinarily good, this is not to be reputed usury. Demosthenes, in his oration against Pantænetus, positively denies that he ought to be branded with the odious name of an usurer who lends for a moderate profit what he has got in his business, and by honest labour, partly that he may preserve what he has got, and partly that he may oblige and accommodate somebody else. . . . It is the essence or substance of buying and selling, say the emperors, meaning by the word essence, or substance, the constant custom or way for the buyer to beat down the price, and the seller to raise it, till, after many words on both sides, the one falling a little from his demand, and the other rising in his bidding, they agree at last in a certain and fixed price. Seneca, with an eye to this regulation, says:—"What signifies what they are worth, if the buyer and the seller are agreed about the price? No thanks to the seller if he has got a good bargain." And Andronicus Rhodius, to the same purpose, says:—"Where the agreement is voluntary, there is no injustice in an advantage, nor is there any amends to be made for it. For the law has granted an impunity in such cases."

CAP. 13.—OF AN OATH.—In every nation, and in every age, an oath has always been of the greatest weight and considera-

tion in promises, agreements, and contracts. For, as Sophocles says in his *Hippodamia* :—

“An oath with sacred awe doth rouse the soul,
And thus restrains her from the double mischief,
Of ang’ring friends and of offending heav’n.”

“Our ancestors,” says Cicero, “could never find out anything stronger than an oath to bind us to the faithful discharge of what we had engaged.” And, therefore, it was ever a received opinion, that some grievous punishment would attend persons forsworn ; as Hesiod has observed, speaking of swearing :—

“From whence dire plagues and dreadful slaughters come
On perjur’d wretches.”

. . . Cicero says very judiciously and well, that “An oath is a religious affirmation, and whatever is promised after such a manner, calling God, as it were, for a witness to your words, ought punctually to be performed.” But as for what he adds, “And this we are to do in regard to honour and justice, and not out of any fear of the anger of the gods ; for there is no such thing incident to their natures.” If by anger he means a passion or disturbance, he is in the right of it ; but if he excludes all desire or will to make the guilty suffer, it is no ways to be allowed. . . . If it be certain that he who swore supposed a certain fact which really is not as he supposed, and that unless he had believed so he would not have sworn, that oath shall not bind him. But if it be doubtful whether he would not have sworn though he had not been thus mistaken, he shall then stand to his words, because the most simple interpretation is what is most agreeable to an oath. . . . The form of oaths may be different in words, but the substance is the same. For all are understood to appeal to God in this manner : for instance, “Let God be my witness,” or “Let God be my avenger,” which both amount to one and the same thing. For when we call Him to witness who has a power and right to punish, we do at the same time desire Him to revenge our

perfidiousness ; and He who knows all things is an avenger of the crime by the same reason that He is a witness of it. . .

CAP. 14.—OF THE PROMISES, CONTRACTS, AND OATHS OF THOSE WHO HAVE THE SOVEREIGN POWER.

CAP. 15.—OF PUBLIC TREATIES, AS WELL THOSE THAT ARE MADE BY THE SOVEREIGN HIMSELF AS THOSE THAT ARE CONCLUDED WITHOUT HIS ORDER.— . . . The difference between leagues and sponsions may be learnt out of the 9th book of Livy, where he rightly tells us that leagues are such as are made by the command of the sovereign power, whereby the whole nation is exposed to the wrath of the gods if they violate it. . . . A sponsion is when public persons, having no orders from the sovereign power, yet promise something relating to it. . . .

CAP. 16.—OF INTERPRETATION, OR THE WAY OF EXPLAINING THE SENSE OF A PROMISE OR CONVENTION.—*How promises do outwardly oblige.* . . . “When you promise,” says Cicero, “we must consider rather what you mean than what you say.” But because the inward acts and motions of the mind are not in themselves discernible, and there would be no obligation at all by promises if every man were left to his liberty to put what construction he pleased upon them, therefore some certain rule must be agreed on whereby we may know what our promises oblige us to ; and here natural reason will tell us that the person to whom the promise is given, has a power to force him who gave it to do what the right interpretation of the words of his promise does require. For otherwise no business could come to a conclusion, which in moral things is reckoned impossible. . . . The best rule of interpretation is to guess at the will by the most probable signs, which signs are of two sorts, words and conjectures ; which are sometimes considered separately, sometimes together. . . . If no conjecture

guides us otherwise, the words are to be understood according to their propriety, not the grammatical one, which regards the etymon and original of them, but what is vulgar and most in use, for "Use is the judge, the law and rule of speech." . . . But terms of art, which the common people are very little acquainted with, should be understood as explained by them who are most experienced in that art, as what *majesty* is, what *paricide*; for, as Cicero says in his first of the *Academics*, "the terms of logic are not common words, but peculiar to that subject, as indeed are the terms of almost every art." . . . Conjectures are necessary when words and sentences are of several significations, which the rhetoricians call *doubtful* and *ambiguous*. But the logicians are nicer in their distinctions; for if a word can have several significations, they call it an *equivocation*; if a sentence, an *ambiguity*. And we must also use conjectures when in any contracts there is a seeming contradiction. For we must needs have recourse to conjectures when several parts seem to clash with one another, in order to reconcile them if we can; but if that cannot be, then the last clauses which the contractors agreed on shall set aside the former. . . . The principal heads from whence these conjectures arise are the matter, the effect, and the circumstances or connection. . . .

Words are to be taken even more strictly than the propriety will bear, if it be necessary in order to avoid an injustice or an absurdity; and without such a necessity, if there be a manifest equity or advantage in the restriction, we are to confine ourselves within the narrowest bounds of their propriety, unless circumstances persuade us otherwise. Cicero, from some ancient author, has, upon the object of this dispute and difficulty, laid down several rules to know which cause ought to prevail, and have the preference, when the clashing and contrariety is by accident: . . . 1. That which is only permitted must give place to that which is commanded. . . . 2. What is to be done at a certain and fixed time, must be preferred to

what may be done at any time. . . 3. In covenants which are in the respects before-mentioned equal, that which is most particular, and comes nearest to the matter in hand, must take place. . . 4. The prohibition which has a penalty annexed is to be preferred before that which has none, and that which has a greater before that which has a less. 5. What has either more honourable or more advantageous motives shall carry it. 6. What is last spoken ought to be most regarded.

CAP. 17.—OF THE DAMAGE DONE BY AN INJURY, AND THE OBLIGATION THENCE ARISING.—We have already shown that a man may have a right to a thing three several ways, either by contract, by an injury done him, or by law. Of contracts we have fully treated. Let us now come to that right which arises by the law of nature from an injury received. We here call any fault or trespass, whether of commission or omission, that is contrary to a man's duty either in respect of his common humanity or of a certain particular quality, an injury. From such a fault or trespass there arises an obligation by the law of nature to make reparation for the damage, if any be done. The word *damnum*—damage—probably derived from *demo*, to take away, is when a man has less than his right, whether that right be merely from nature, or some superadded human act, such as the establishment of property, contract, or law. A man's life is his own by nature—not, indeed, to destroy, but to preserve it—and so is his body, his limbs, his reputation, his honour, and his actions. So as to what belongs to everyone in consequence of the establishment of property, or by virtue of an agreement, we have shown above, both in regard to the things that thus become ours, and in regard to the right which we thus acquire over the actions of others. Every one has likewise certain rights, wherewith he is invested by some law; because the law has an equal or greater power over the persons and estates of those who are subject to it than any private man has over himself, and what belongs to him.

So an orphan has a right to require his guardian to take strict care of his affairs ; the same may the State require of a magistrate, and not the state only, but any private member of it, as often as the law authorises him either expressly or by plain consequence. He to whom the power of making magistrates is committed, is bound to the commonwealth to make choice of such a person as is fit for the office, and the commonwealth has properly a right to require this of him. . . . He has the same right to sue for satisfaction to whom a testator would have left a legacy, but by force or a fraud was hindered. For to be qualified to receive a legacy is a kind of a right, and, consequently, to deprive the testator of his liberty of bequeathing it is an injury. Besides the person that doth the injury himself, there are others also who may be responsible for it, either by doing what they ought not, or not doing what they ought to have done. By doing what they ought not to have done, *primarily* or *secondarily*. Primarily, as he who commands it to be done, he who gives the necessary consent for doing it, he who assists in the action, he who protects him that committed it, or becomes in any other manner a party in doing the injury. Secondarily, he that advises the doing it, or commends and flatters him who does it. "For what difference is there," saith Cicero, "between the man that persuades us to do a thing, and him that approves of it when done?" By not doing what he ought, a man is likewise bound to make reparation, *primarily* or *secondarily*. Primarily, when by his station or office he ought to hinder the doing it, by giving his commands to the contrary, or to succour him that has the wrong done him and does it not ; such a one is called by the Chaldee "Paraphrast" a strengthener of wickedness. Secondarily, he that does not dissuade when he ought, or conceals the fact when he ought to have discovered it.

But, as aforesaid, we may suffer damage even in our honour and reputation, as by blows, ill language, curses, calumnies, scoffs, and such like. And in these, no less than in thefts and

other crimes, the wickedness of the action is to be distinguished from the effect it produces. This punishment answers to the former, and the reparation of damage to the latter. The reparation is made by confessing one's fault, by declaring the innocence of the injured person, by giving marks of esteem for him, and the like; though, if the injured person desire it, reparation may be made for such an offence by money, that being the common standard, whereby everything that is profitable may be measured.

CAP. 18.—OF THE RIGHTS OF EMBASSIES.—We have hitherto treated of those rights that belong to us by the law of nature, adding some few that arise from the voluntary law of nations, as it is an addition to the law of nature. Let us now come to consider what obligations that law of nature, which we call voluntary, doth of itself lay us under. Whereof the chief head is of the right of embassy. For in all authors mention is made of the sacred rights of embassies; of the sacred character of “ambassadors,” of the right of nations due to them, a right both divine and human. The right of embassy is accounted by all nations sacred, it is called the sacred league of nations, and the human league; and the persons of ambassadors are styled sacred.—“A name that nations always sacred held.”

Profane histories are full of instances of wars undertaken for the ill usage of ambassadors; and in the Holy Scripture we read of a war made by King David against the Ammonites upon that account. Neither can there be a juster cause, as Cicero pleads against Mithridates.

CAP. 19.—OF THE RIGHT OF BURIAL.— . . . Euripides being upon this very subject, in the person of Theseus, speaks thus in his suppliants :—

“Permit the slain to find a peaceful grave :
All things to that, which gave them birth, return,
To Heaven soars up the pure ætherial mind,

The mortal part to parent earth descends ;
 'Tis fit it should be so. For life to man,
 Not as a property, but loan, is given :
 And straight the earth her foster child resumes."

CAP. 20.—OF PUNISHMENTS.— . . . Punishment, then, in its general acceptance, is the evil that we suffer for the evil that we do. For though some sorts of labour or work are often imposed on persons by way of punishment, yet, considering the pains and trouble that attend such labour and work, they may properly enough be ranked amongst the evils we suffer. . . . And Hierocles calls punishment "The medicine of wickedness." And Lactantius says :—"They are guilty of no small error who miscall punishment, either human or divine, by the name of bitterness and malice, imagining that he ought to be esteemed guilty who only punishes the guilty." But that all punishment, which is properly so-called, must necessarily be the consequence of some crime or demerit, is what St. Austin has observed—"All punishment, if it be just, must be the punishment of some crime," which is true even of those punishments that are inflicted by God Himself, though sometimes through our ignorance the offence is concealed where the punishment is evident, as the same author speaks. . . .

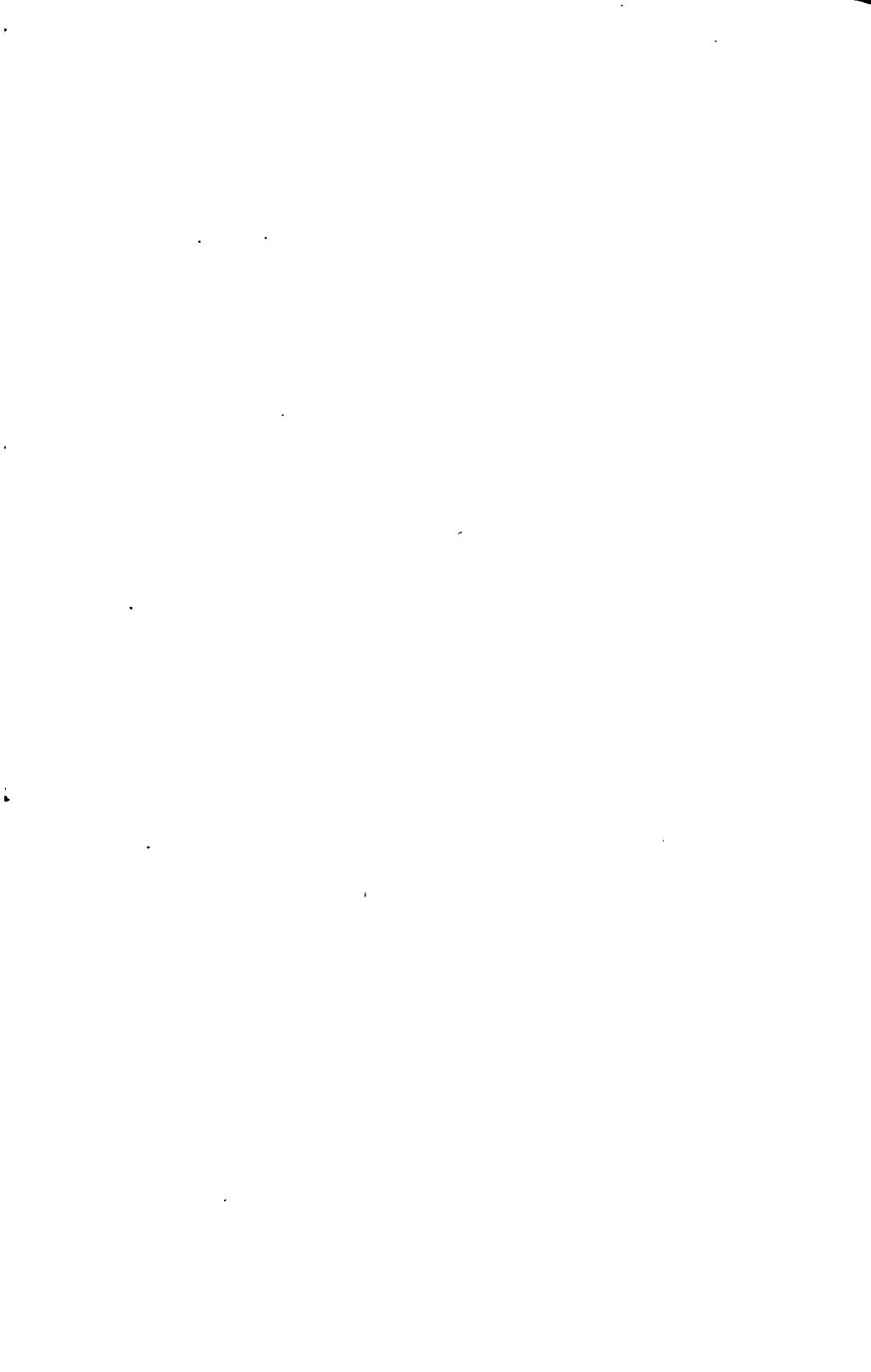
And herein there is another thing that comes near to the nature of contracts ; for as he who sells a thing, though he mention nothing particularly, is yet presumed to stand obliged to perform the conditions that naturally belong to such a sale ; so he that commits a crime seems voluntarily to submit himself to punishment, there being no great crime that is not punishable, so that he who will directly commit it is, by consequence, willing to incur the punishment ; in which sense some princes have pronounced sentence upon a malefactor thus :—"Thou hast brought this punishment upon thine own head," and they that take wicked counsel, are then said to be punished for their demerit, that is, to lay themselves under an obligation of being punished by their own will. And the

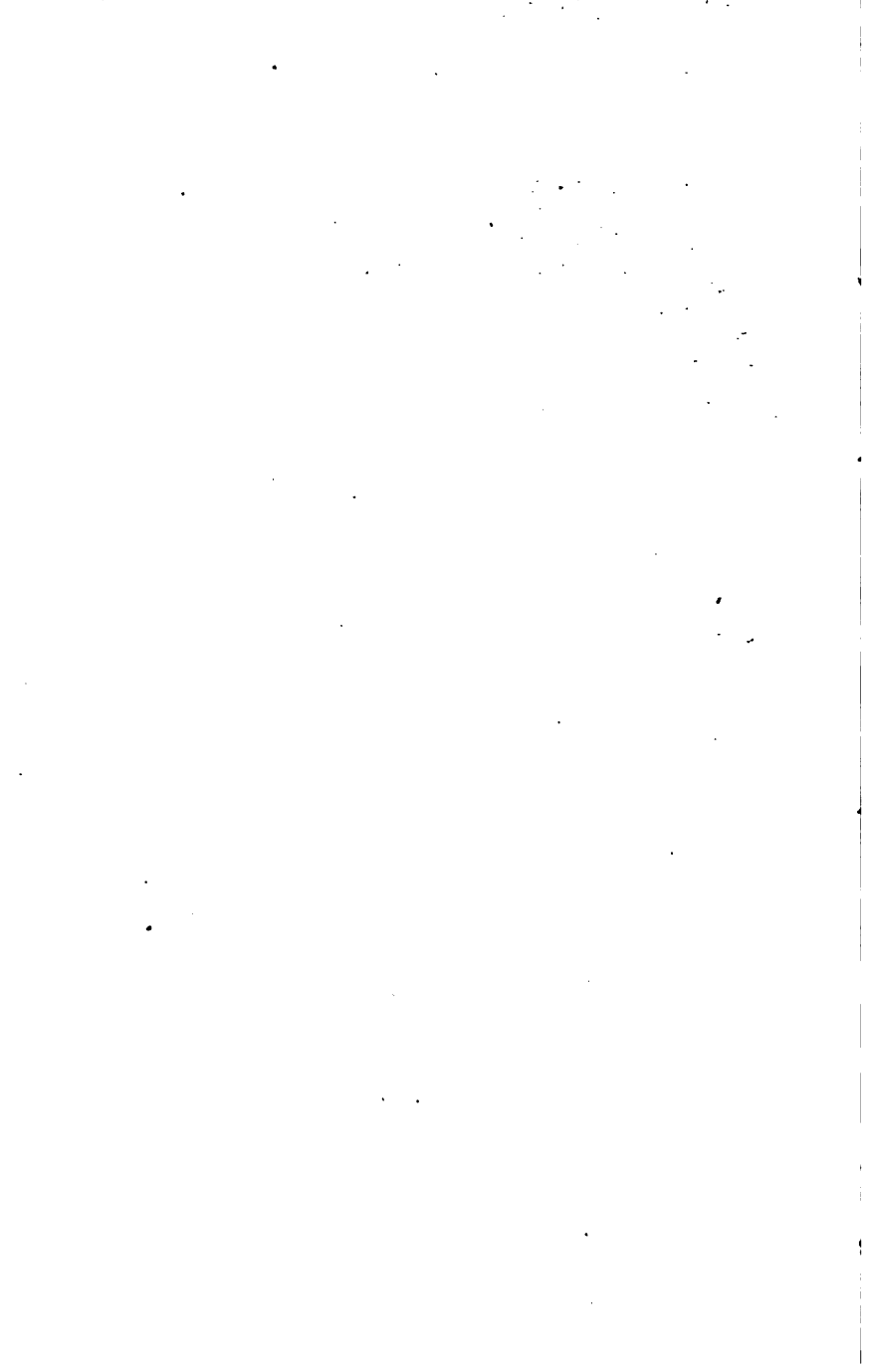
woman in Tacitus, who lay with another man's slave, is said to have consented to her own slavery; that being the punishment ordained against such. . . I say, then, that punishment may have regard either to the good of the offender, or of him who suffers by the offence, or of any persons indiscriminately.

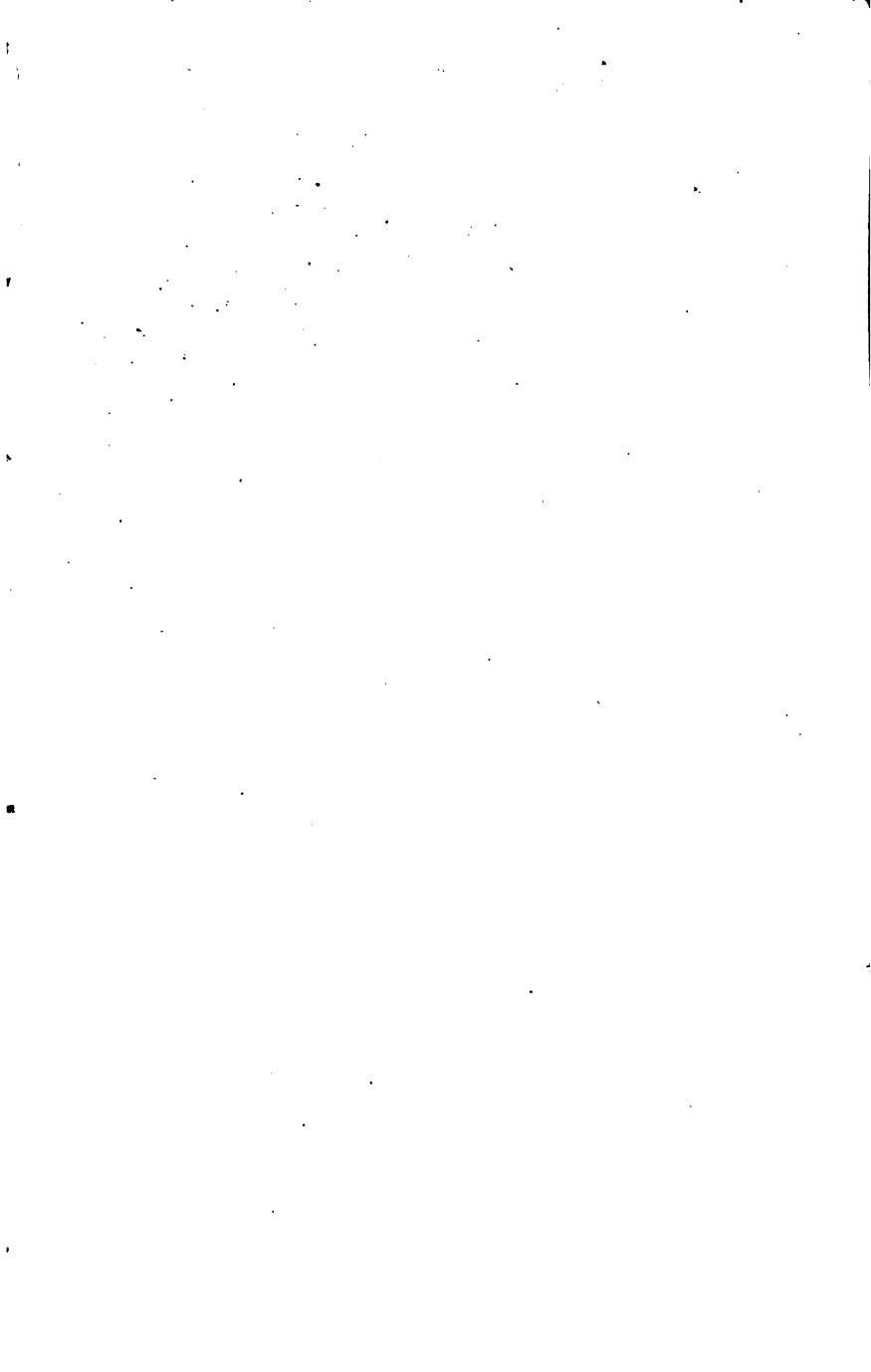
The true religion, which has been common to all ages, is built upon four fundamental principles, of which the *first* is, that there is a God, and but one God only. The *second*, that God is not any of those things we see, but something more sublime than them. The *third*, that God takes care of human affairs, and judges them with the strictest equity. The *fourth*, that the same God is the creator of all things but Himself. These four are expressed in so many commandments of the Decalogue.

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